

PRL-TR-67-11

September 1967

AD 664036

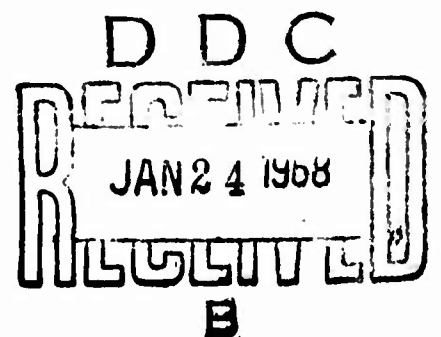
**Procedural Guide for Conducting Occupational Surveys
in the United States Air Force**

By

**Joseph E. Morsh
Wayne B. Archer**

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its distribution is unlimited.**

**PERSONNEL RESEARCH LABORATORY
AEROSPACE MEDICAL DIVISION
AIR FORCE SYSTEMS COMMAND
Lackland Air Force Base, Texas**



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FOREWORD

The research upon which this procedural guide is based was carried out, both in-house and by contract, under Project 7734, Development of Methods for Describing, Evaluating, and Structuring Air Force Occupations; Task 773401, Development of Methods for Collecting, Analyzing, and Reporting Information Describing Air Force Specialties.

The computer programs for analyzing the job inventory data and the format for the computer printouts were designed by Dr. Raymond E. Christal.

This report has been reviewed and is approved.

James H. Ritter, Colonel USAF
Commander

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Technical Director

ABSTRACT

This procedural guide sets forth in detail the procedures for collecting, organizing, analyzing, and reporting information describing work performed by Air Force officers and airmen. Specific steps in the application of the Air Force method of job analysis are presented in chronological order.

The guide has been designed to (a) provide guidance to Air Force and other agencies who propose to construct and administer job inventories, (b) assemble information about the Air Force method of job analysis which is now available only from scattered sources, (c) indicate problems found in applying the Air Force method and suggest possible solutions, (d) summarize hitherto unreported experiences gained during occupational surveys, (e) acquaint using agencies with the products of occupational surveys, and (f) provide briefing material where summary information about the Air Force method is required.

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PROCEDURAL GUIDE FOR CONDUCTING OCCUPATIONAL SURVEYS IN THE UNITED STATES AIR FORCE

I. INTRODUCTION

1. *General.* The method of job analysis developed for the Air Force combines some of the best features of the checklist with those of the open-ended questionnaire and observation interview methods. The procedure provides a practical and economical means for conducting Air Force-wide surveys. But most important, the method derives work information in standardized quantifiable form, thus taking full advantage of the capabilities of modern electronic data processing equipment. The procedure is founded upon the results of a series of research projects extending over several years. In the course of these studies some 100 occupational surveys have been conducted involving almost 100,000 Air Force personnel.
2. *Scope.* This procedural guide sets forth in detail the procedures for collecting, organizing, analyzing, and reporting information describing work performed by Air Force officers and airmen. Specific steps in the application of the Air Force method of job analysis are presented in chronological order. Occupational survey methods for airman specialties are now fully operational, while officer survey methods are still in the developmental stage. Therefore, this report gives fuller coverage of the procedures for airman job surveys.
3. *Functions.* The guide has been devised to serve several purposes.
 - a. To provide guidance to Air Force and contractor personnel who propose to construct and administer job inventories.
 - b. To assemble in easily accessible form detailed information concerning the Air Force method of job analysis which is now available only from scattered sources.
 - c. To indicate some of the problems to be encountered in applying the Air Force method of job analysis and to suggest possible solutions.
 - d. To give in summary form experiences gained during occupational surveys which hitherto have not been reported.
 - e. To inform members of the other services or civilian agencies who are interested in trying out the Air Force method of job analysis.
 - f. To acquaint using agencies with the available products of occupational surveys.
 - g. To provide briefing material where a summary of the steps in applying the Air Force method of job analysis is required.

II. EXPLANATION OF TERMS

1. *Air Force Specialty (AFS)* - A grouping of positions which require common qualifications. An AFS is identified by a title and a code.
2. *Air Force Specialty Code (AFSC)* - A combination of meaningful digits used to identify an AFS.
3. *Air Force Specialty Shredout (AFS Shredout)* - An identification of part of an AFS by means of a title and alphabetical suffix to the appropriate AFSC to show qualification in specific equipment or functions embraced in an AFS.

4. *Career Area* - A group of utilization fields that are broadly related on the basis of required skills and knowledge. In the following pages this term is sometimes used in referring to airman specialties.
5. *Career Field* - A grouping of airman specialties involving basically similar knowledge and skills. It includes career field subdivisions and ladders.
6. *Career Field Ladder* - A vertical arrangement of airman AFSs within a career field subdivision to indicate skill distinction and progression.
7. *Career Field Subdivision* - A division of a career field in which closely related airman AFSs are arranged in one or more ladders to indicate lateral functional relationship, emerging at the advanced (7) or superintendent (9) skill level.
8. *Duty* - A large segment of the work done by an individual. The italicized paragraph headings in the duties and responsibilities section of the specialty descriptions in AFMs 36-1 and 39-1 set forth the major duties performed in each AFSC. Other examples of duties are given in attachment 1 to this guide.
9. *Job* - The duties and tasks actually performed by a specific individual.
10. *Job Inventory* - An instrument used for conducting an occupational survey. It consists of items of identification and background information, questionnaire items, and a list of appropriate duty and task statements.
11. *Job Type* - A group of jobs that are composed of essentially the same significant duties and tasks. The term *job* may be used in place of job type in cases where it is obvious that the collective term is meant.
12. *Occupational Survey* - The Air Force procedure for collecting data to identify the duties and tasks which comprise one or more shredouts, specialties, or career field ladders; and for the collation and analysis of information concerning such duties and tasks.
13. *Occupational Survey Report* - The report summarizing the results of an occupational survey. It includes distribution information about individuals participating in the survey; duty and task level job descriptions of specialty and other groups; and descriptions of significant job types found among the incumbents surveyed.
14. *Position* - The duties and tasks established as the work requirement for one individual. A position exists whether occupied or vacant.
15. *Prefix* - A letter preceding the AFSC indicating special qualification not limited to a single utilization field or career area. The prefix T, for example, indicates that the incumbent is qualified as an instructor in the AFSC.
16. *Task* - A unit of work activity which forms a significant part of a duty. Task statements may be found under duties listed in AFMs 36-1 and 39-1. Other task statements appear in attachment 1 to this guide.
17. *Technical Adviser* - A commissioned officer, warrant officer, noncommissioned officer, or civilian who is qualified in the technical aspects of the specialty being considered.
18. *Utilization Field* - A grouping of Air Force officer specialties closely related on the basis of required skills and knowledge. Where, due to their highly specialized nature, the skills and knowledge required by a particular specialty are not directly related to those required by another specialty, the one specialty is also a utilization field.

III. LOCATION AND PROCUREMENT OF SOURCE MATERIALS

The preliminary form of a job inventory is based on published source materials descriptive of the career area. An effort is made to consult every pertinent source. The first step is to identify the available sources by a search of publications indexes and catalogs and other standard references. The assistance of a librarian may be required. The assembly of published sources is begun well in advance of the beginning date set for preliminary form construction to allow for lag time between the requisition and receipt of some materials. The quality and type of available publications vary from one specialty to another; therefore, a given standard publication may be more or less useful for a particular AFS. The following paragraphs discuss standard sources which are available for most career areas.

1. *AFM 39-1, Airman Classification Manual*, and *AFM 36-1, Officer Classification Manual*. These manuals are the basic source documents for job inventories. They contain official Air Force descriptions of every Air Force Specialty. The descriptions are brief, usually one page in length, so that much of their content is necessarily too general for direct inclusion as task statements. However, the job inventory must cover all activities described in the specialty descriptions. In rapidly evolving career areas such as electronics and missile maintenance, the AFSC designations for given specialties are frequently changed. In these cases it is necessary to consult earlier editions of the manual and to record the change dates and the previous AFSCs so that sources published before the change may be identified.

2. *USAF Study Reference Lists*. A Study Reference List is published for every career field for the use of airmen who are studying for Specialty Knowledge Tests (SKTs). This list provides a bibliography of published source materials for each AFSC above the apprentice level within the career field. All cited references for appropriate AFSCs in the Study Reference List are obtained.

3. *Specialty Training Standards (STSs)*. The STSs, formerly designated *Job Training Standards (JTSs)*, expand on the content of AFM 39-1 and list tasks, knowledges, and general study references (GSRs) for particular career ladders. When available, these sources are listed in AFR 0-8, *Numerical Index of Specialty/Job Training Standards and On-the-Job Training Packages*. The format of a Specialty or Job Training Standard (S/JTS) is generally similar to that of a job inventory and can often provide a sound duty outline. Some S/JTS items can be used as task or duty statements with little or no rewording. However, since the S/JTS contains fewer items than a job inventory, many of its items are more broadly worded than job inventory task statements, and will need to be split out into more specific tasks. The general study references (GSRs) given for S/JTS items often provide the most complete available bibliography of published source materials for a career ladder. For recently changed AFSCs, an S/JTS for the previous AFSCs may still contain current information.

4. *On-the-Job Training Packages*. On-the-Job Training Packages, also listed in AFR 0-8 are now being replaced by *Career Development Courses (CDCs)*; however the training packages are still current for some specialties. These are textbooks for airmen in particular AFSCs. The chapter and section headings in the On-the-Job Training Packages are useful in developing duty outlines; and the text is used as a reference to clarify specific tasks.

5. *Air Force Regulations in the 0- Series*. These regulations, which are bound within a single volume in most technical libraries, provide a variety of indexes of published source materials. The most generally applicable of these indexes are discussed below.

a. *AFR 0-1, Guide to Indexes, Catalogs, and Lists of Departmental Publications*. This is a master index which lists and briefly describes other major indexes, and gives their office of primary responsibility (OPR) and distribution or source of availability. ("Departmental" refers to the Department of the Air Force.)

b. *AFR 0-2, Numerical Index of Standard Air Force Publications.* This index gives the full titles of sources which may be cited elsewhere only by publication number. Air Force letters, manuals, pamphlets, regulations, and visual aids are listed numerically and by subject series; the OPR and distribution under a pertinent subject series should be considered as possible sources, even if they have not been found referenced elsewhere.

c. *AFR 0-6, Subject Index of Air Force Publications.* AFR 0-6 lists Air Force regulations, pamphlets, and manuals alphabetically by subject. Its format is sometimes more convenient for use than the numerical list in AFR 0-2. All publications under a pertinent subject-matter heading should be considered as possible source materials.

d. *AFR 0-9, Numerical Index of Departmental Forms, and AFR 0-12, Functional Index of Departmental Forms.* These indexes are used during preliminary inventory construction to insure that all forms associated with the career area are covered in the inventory. Prior to final inventory construction, these regulations are again consulted in a final check for correct form numbers and titles.

6. *AFM 50-5, U. S. Air Force Formal Schools Catalog.* This catalog contains information on training programs and courses for both airman and officer personnel. Most courses are designed for specific AFSCs. The manual gives brief descriptions of course content which may be helpful in establishing duty categories for job inventories. For example, if separate courses are given for different work functions or for different types of equipment used within a career ladder, the inventory should probably contain correspondingly separate duty sections.

Training materials associated with the courses listed in AFM 50-5 are sometimes excellent sources for duty and task identification. These include but are not limited to the following.

a. *Career Development Courses (CDCs).* The CDCs are correspondence courses based upon the airman specialty descriptions in AFM 39-1. Usually, between one and six volumes are published for a career ladder. The CDCs are superseding On-the-Job Training Packages, which were previously described. They cover general Air Force subjects, specialty theory and fundamentals, and broad knowledge requirements for career progression within the ladder. Content of the CDCs is prepared and revised by Air Training Command (ATC), and they are published and administered by the Extension Course Institute (ECI) under the direction of Air University. Available CDCs are listed in AFM 50-5, and in the list, "ECI Courses Currently Available," which is sent to base education and training officers.

b. *Course Charts and Syllabuses of Instruction.* Course charts and syllabuses developed for ATC airman courses are useful sources of both duties and tasks. A course chart gives a general description of the major blocks of course content. A syllabus of instruction lists training elements in detail, gives the training time for each element, and describes the training equipment used. These training elements can often be directly used or slightly reworded for use as task statements. The course charts and syllabuses are not widely reproduced or distributed, since they are primarily for the use of instructors and course planners in ATC. However, a copy can usually be obtained by a letter of request explaining the plan for the job survey, the need for the materials, and their proposed use.

c. *Other Training Materials.* Training materials on the general order of course charts and syllabuses are requested from appropriate training centers. The requests are made by letter, telephone, or personal visit. Training center personnel have always been highly cooperative and interested in the job surveys, since the survey data can have implications for planning, evaluating, or revising course content. At this stage, as contacts are made with training center personnel, general information can be obtained on problem areas in training or in the field which should be investigated in the job inventory survey. Tentative arrangements can be made for input by the training centers of specific questionnaire items or task statements, and for later technical review of the job inventory.

7. *Previously Constructed Job Inventories and Survey Analyses.*

a. *The Personnel Research Laboratory, Lackland AFB, Texas*, has previously-constructed job inventories for 85 airman career ladders and 16 officer utilization fields. The inventories were constructed and administered during 1961-1967, in developing the present occupational survey procedures. Early inventories in the series are at least partly obsolete, but may be of some help in structuring revised inventories. Computer analyses of these experimental surveys, showing the percentage of men performing each task and related data, are available on a loan basis from the Laboratory. Lists of additional tasks which were not included in the inventories, but which were written in by surveyed officers and airmen, are available in some cases. The Laboratory continuously conducts experimental surveys in selected career areas.

b. *The Job Specialty Survey Division, Operations, Lackland Military Training Center, Lackland AFB, Texas*, is the operational unit for job inventory surveys and analysis. At present, only airman career areas are being operationally surveyed. The Job Specialty Survey Division maintains a complete file of current job inventories and survey reports, which may be obtainable upon written request.

8. *USAF Technical Orders (T.O.s)*. These documents typically present illustrated parts breakdowns and detailed instructions for maintaining and repairing equipment. The master index to all USAF Technical Order Indexes is T.O. 0-1-01. For a single maintenance career ladder, whole shelves of T.O.s may provide relevant source materials.

Technical Orders in the -06 series, entitled *Work Unit Code Manuals*, are used as basic references for aircraft maintenance inventories. Each manual in the series gives a detailed equipment breakdown for each system on one type of aircraft. The manuals are used in the field for reporting maintenance data as prescribed in AFM 66-1. In job inventory construction they serve as a checklist to insure coverage of all equipment units.

The level of detail in Technical Orders is usually too specific for direct inclusion in a job inventory; the information must be summarized for use as task statements. This can sometimes be accomplished by using T.O. chapter or section headings. For example, it may be necessary to summarize an entire T.O. chapter in one task statement such as "Perform preventive maintenance on air compressors." An additional problem is that T.O.s are strictly equipment-oriented; and while they specify what tasks are performed on equipment, they do not tell which specialties perform the tasks. This information must be derived from other source materials or from interviews with technical advisers.

9. *Air Force Regulations and Pamphlets*. Each Air Force Regulation (AFR) or Air Force Pamphlet (AFP) defines the precise policies, responsibilities, or procedures which relate to a highly specific subject. For example, AFR 76-20 governs "authorizations to airlift civilian celebrities or entertainers," and AFP 167-3-1 prescribes "color standards for medical treatment facilities." All AFRs and AFPs which are referenced in the source materials for a career area are consulted. It is usually impractical to cover a particular AFR or AFP with more than one or two task statements, and sometimes several related regulations or pamphlets are covered with a single statement. They are used primarily as general references to insure complete inventory coverage and to clarify the meaning of other source materials.

10. *Air Force Manuals (AFMs)*. These manuals vary widely in breadth and type of material covered. Examples are AFM 66-1, *Maintenance Management*, which describes the management system for all maintenance career areas; AFM 66-3, *Foreign Object Damage to Gas Turbine Engines*, which covers a specific type of equipment; and AFM 160-51, *Laboratory Procedures in Clinical Hematology*, which describes the work of a particular job type. Chapter and section titles in the AFMs are sometimes used as duty headings.

11. *Officer Grade Requirements Job Descriptions*. During 1963 and 1964, as part of the Officer Grade Requirements Project (Christal, 1965), the Personnel Research Laboratory collected

approximately 80,000 written job descriptions from Air Force officers in most utilization fields. Each officer reported his job title; gave a verbal description of the location of his job within the Air Force organizational structure; wrote a detailed description of the duties and tasks he performed; mentioned any unusual requirements of his job; and supplied other pertinent information. These data are on file at the Personnel Research Laboratory, where they may be consulted upon request. (Personal identification of the surveyed officers is confidential.)

12. *Special Publications.* Publications not listed in standard USAF references are sometimes identified in interviews with technical advisers. These may include contractors' operating or maintenance instructions for new types of equipment; Job Proficiency Guides (JPGs), which are local or command-wide revisions of the Specialty/Job Training Standards; or special studies of the career area reported by military or civilian agencies.

IV. CONSTRUCTION OF PRELIMINARY JOB INVENTORY

1. *Coverage of the Job Inventory.*

a. An officer job inventory will usually cover all jobs which might be encountered in a normal career progression, including the entry and staff level jobs. For example, an inventory used to survey the Legal Utilization Field will list duties and tasks performed in four officer specialties: Legal Staff Officer (AFSC 8816), Legal Staff Officer, Entry Level (AFSC 8811), Legal Officer (AFSC 8824), and Legal Officer, Entry Level (AFSC 8821).

b. An airman job inventory will normally include duties and tasks performed by all skill levels of one airman career ladder from apprentice, through journeyman and supervisor, to superintendent. For example, an inventory used to survey the Dental Laboratory Career Ladder will include duties and tasks performed in four airman specialties: Apprentice Dental Laboratory Specialist (AFSC 98230), Dental Laboratory Specialist (AFSC 98250), Dental Laboratory Technician (AFSC 98270), and Dental Superintendent (98290). Where there is thought to be overlapping of the work performed, two or more career ladders may be surveyed with a single job inventory. For instance, one inventory was developed for the entire Data Systems Career Field, which consists of five career ladders.

2. *Length of Job Inventory.* Except under unusual circumstances, the job inventory should contain not less than 200 nor more than 600 task statements. The maximum length is roughly determined by the number of statements that can be responded to within a two-hour period. It is undesirable to keep men away from their jobs for more than two hours; furthermore, a longer period spent on filling out an inventory tends to induce boredom and fatigue with consequent negative effects on the quality of responses obtained. If a career ladder is covered by an inventory with fewer than 200 task statements, the statements may be so broad and general that they yield little information about specifics. If, on the other hand, the preliminary inventory is too long, it probably includes unnecessary details. It can be reduced by combining statements, by reducing the number of supervisory statements, and by including some of the details in the background information section. The specificity of task statements is largely determined by the overall length of the inventory and the good judgment of the inventory constructor.

Long inventories are sometimes unavoidable when certain complex career ladders are surveyed or when several ladders are included in the same inventory. However, such inventories need not require excessive time to complete. Task statements may be organized under duty categories so that the incumbent rapidly scans groups of tasks that he does not perform and then proceeds to the tasks under the next duty. For example, a mechanic who works in the shop knows without reading them that none of the tasks under the duty heading, PERFORMING ENGINE CONDITIONING ON THE FLIGHT LINE, apply to him.

3. *The Background Information Section.* The background information section of the job inventory contains items relative to the identification of the job incumbent, location of his job, previous experience, education, and other job related information apart from the specific duties and tasks performed. Typical background information items are listed below.

a. *Identification Information.*

- (1) Date
- (2) Case Control Number
- (3) Name
- (4) Grade
- (5) Air Force Service Number
- (6) Primary AFSC
- (7) Duty AFSC
- (8) Present Work Assignment (Job Title)
- (9) Telephone Extension

b. *Job Location Information.*

- (1) Command
- (2) Base or Installation
- (3) Organization

c. *Experience and Other Job Related Information.*

- (1) Total Months at Present Base
- (2) Total Months in Career Field
- (3) Total Months in Duty AFSC
- (4) Total Months in Present Work Assignment
- (5) Total Months Active Federal Military Service
- (6) Previous AFSC
- (7) Number of Subordinates Supervised
- (8) Method of Assignment
- (9) Highest Education Level Completed
- (10) Reenlistment Plans
- (11) Job Interest
- (12) Utilization of Talents and Training
- (13) Courses Attended
- (14) Time Spent on Specific Equipment

4. *Job Inventory Duty Statements.* Before assembling task statements into the preliminary inventory, tentative duty categories must be selected under which the task statements will be grouped. Action words ending in "ing" (gerunds) are used to designate duties, in conformance with the functional orientation of Air Force job inventories. Supervisory duties are placed first in the inventory and include such activities as supervising, organizing, planning, directing, implementing, training, inspecting, and evaluating. Monitoring, controlling, coordinating, and communicating duties are sometimes used in officer job inventories.

Work performance duties follow the supervisory duties and include such activities as performing, maintaining, troubleshooting, repairing, removing and replacing, adjusting, and installing. An object is frequently used with these action words, e.g., maintaining forms.

Other duty headings will be suggested by functional or organizational charts appearing in the source documents. An incumbent in a particular work area may perform a number of related tasks which can be grouped together in the job inventory. For example, maintenance jobs are sometimes divided into flightline maintenance, quality control, maintenance analysis,

repair shops, and other work sections. Duty statements may also be written to describe known or hypothesized job types which exist within a work section or which cut across several work areas. If few task statements, say half a dozen or less, are found for a particular duty category, tasks under related duties may be combined. Examples of such duty combinations are organizing and planning, directing and implementing, inspecting and evaluating. Thus, two or more action words may be used to designate a single duty category.

In job inventories without answer sheets, each duty statement is printed at the top of a page and designated by a capital letter A, B, C, etc. The appropriate task statements are listed below and numbered consecutively under each duty. Where answer sheets are used, the tasks are numbered consecutively throughout the inventory. The duty headings appear at appropriate places in the task list to indicate that tasks following belong to that duty category.

5. *Job Inventory Task Statements.* In constructing, reviewing, and editing the task statements of an Air Force job inventory, there are three considerations to be kept constantly in mind: First, the purposes to be served by the information obtained; second, the individual whose job is being surveyed and who will complete the inventory; and finally, the format to be used so that the data may be analyzed by specially developed electronic computer programs.

a. *Purposes to be Served by Task Information.* Each task statement should be written in the context of the uses to be made of the information derived from it. In general the statement should serve one or more of the following purposes:

(1) The emphasis in the airman job inventory should be upon performance of work rather than supervision. That is, the journeyman or 5-skill level tasks should predominate. Supervisory task statements ordinarily should not exceed 25 per cent of inventory coverage.

(2) The task statement should elicit responses that differentiate between officer groups such as staff and non-staff officers or qualified and entry level officers, and between airman skill-level groups such as superintendents and supervisors, supervisors and journeymen, and journeymen and apprentices.

(3) The task statement should elicit responses that differentiate among different job types. For example, the items "Interpret visual photographs" and "Interpret radarscope photos" would differentiate between the visual and radar job types in the Photo Interpretation career ladder. "Interpret photographs," however, would not differentiate, since members of both job types could say they perform the task.

(4) The task statement should elicit responses that differentiate among career ladders if two or more ladders are covered by the inventory.

(5) If the task statement elicits enough responses from certain kinds of incumbents, it could become the basis for an element in a specialty training standard or career development course. If the statement elicits few or no responses from certain incumbents, some elements of the training program may be eliminated.

(6) If the task statement elicits the proper responses, it could be used as a guide in Specialty Knowledge Test construction.

b. *The Individual Responding to the Task Statements.* In considering the individual who responds to the job inventory, each task statement should conform with the following ground rules:

(1) The task statement must be clear so that it is easily understood by the incumbent.

(2) The task statement must use terminology that is consistent with current usage in the career field.

(3) The task statement should be brief to save reading time of the incumbent.

(4) The task statement must be unambiguous so that it has the same meaning for all incumbents in the career field.

(5) Abbreviations must be used cautiously since they may not be understood throughout the Air Force. It is good practice to spell out the term and follow it by the abbreviation in parentheses where it first appears in the inventory. In later tasks the abbreviation may stand alone. For example, "Inventory War Readiness Materiel (WRM)" may be followed by "Prepare requisitions for WRM."

(6) The task statement must be worded so that the task rating scales make good sense when applied to it.

(7) The task statement must be ratable in terms of TIME SPENT and other rating factors. This eliminates skill, knowledge, and responsibility items that begin with such words as "Have responsibility for . . .," "Know how to . . .," "Understand . . .," "Have knowledge of . . ." Such statements found in source materials should be written as two or more activity task statements. E.g., "Maintain files" or "Supervise maintenance of files" NOT "Have responsibility for maintaining files."

(8) Vague or ambiguous words, such as "check," "assist," "coordinate," "recommend," "determine," "assure," should be avoided.

(9) Short words should be used in preference to long words or expressions. E.g., "Write production and control reports" NOT "Accomplish necessary reports involved in the process of maintaining production and control procedures."

(10) The qualifications a worker has, such as intelligence, aptitude, knowledge, education, skill, training and experience are not tasks and are not included in the duty-task section of the job inventory. Information with regard to certain qualifications, such as training, education, and work experience, however, may be obtained by including appropriate items in the background information section of the inventory.

(11) Receiving instruction is not included as a duty or task unless actual useful work is performed during the training. Thus, classroom instruction, laboratory or shop instruction, and the coaching a person receives are not tasks. On-the-job training, however, may include the performance of tasks under a supervisor. These tasks are listed in the inventory the same as any other tasks. Giving instruction, which is a supervisory duty, is included under "Training."

(12) When a task statement concerns the completion of a form, both form title and number should be verified in AFR 0-9.

(13) The task statement should begin with a present tense action word with the subject "I" understood. E.g., "Operate," "Write," "Clean," NOT "Operates," "Writes," "Cleans."

(14) Task statements are arranged alphabetically under each duty. This order shortens the incumbent's reading time and assists him in recalling tasks which are not listed. For example, the incumbent can easily scan through a list of tasks beginning with the word "Inspect" to make sure that all the inspections he performs are in the inventory. The alphabetical arrangement also helps the inventory constructor eliminate duplicate tasks.

c. *Task Statement Format to Facilitate Analysis.* Each task statement must appear in a format that is consistent with a functional orientation and is compatible with the complex computer programs that have been developed to analyze the data obtained. The following guide lines have been established:

(1) The first line of the task statement must not exceed 59 spaces. The second and subsequent lines, which are indented one space, must not exceed 58 spaces. The last word of a line is not hyphenated; the whole word is put in the next line. Task statements are almost always limited to two lines.

(2) The period at the end of the task statement is omitted.

(3) Task statement numbering depends upon the format of the inventory booklets. For standard-format inventories, in which the incumbent enters his task ratings directly on the inventory pages, the tasks are numbered consecutively, beginning with 1 under each duty. When separate answer sheets (attachment 15) are used, either with or without optical scanning equipment, the tasks are numbered consecutively throughout the inventory.

(4) Each task statement must be specific and capable of standing alone. An item such as "Operate other types of equipment" is meaningful to a surveyed incumbent if listed at the end of a series of "Operate . . . equipment" tasks. However, in the consolidated job descriptions the tasks are not printed out in inventory order. Thus, the original context is destroyed, and the item cannot be interpreted.

(5) Each task statement must be a complete sentence. Do not use an action subheading followed by a series of objects.

E.g., 1. Operate automatic capsule filler
2. Operate distilling apparatus
3. Operate force filters

NOT Operate the following equipment
1. Automatic capsule filler
2. Distilling apparatus
3. Force filters

(6) Use "such as" followed by two or three examples. Avoid "and/or" and "etc."
E.g., "Requisition special items such as diagnostic biologicals and reagents" NOT "Requisition special items such as diagnostic biologicals, reagents, etc."

(7) Parallel tasks should appear in appropriate duties. For a task listed as being supervised there should almost certainly be a related task which is performed. Equipment which is inspected is also likely to be repaired and replaced.

(8) Use simple statements without qualifiers, unless the qualifier is essential to the meaning of the statement. E.g., "Operate power mower" NOT "Operate power mower to cut grass;" but "Schedule personnel for formal training" NOT "Schedule personnel."

(9) If a modifier is needed for greater specificity, be sure to include all other significant tasks with comparable modifiers. For example, in an automotive mechanic inventory, "Repair transmissions" would probably be specific enough. However, if the statement were modified to read "Repair automatic transmissions," then "Repair standard transmissions" should also be added.

(10) Avoid tasks that are obviously too specific or trivial. E.g., "Operate fork lift" NOT "Turn ignition key," "Shift gears," "Elevate fork."

(11) Avoid tasks that are too general. Such tasks will not differentiate job types. E.g., "Repair carburetors," "Repair body sections" NOT "Repair motor vehicles."

(12) In general, avoid multiple verbs in a task statement, unless several actions are invariably performed together. E.g., "Erect and align poles" but NOT "Inspect, tow, and repair engines or equipment."

(13) As far as possible, tasks included in the job inventory should be independent. Avoid overlapping task statements. E.g., "Prepare lesson plans" might be used with "Maintain training records or charts" but not with "Prepare lessons."

(14) Avoid redundant qualifying phrases found in source materials such as "when appropriate," "as required," "in accordance with prescribed directives." E.g., "Maintain logs" NOT "Maintain necessary logs in accordance with prescribed Air Force or local regulations and directives."

(15) Use only the following signs which can be made on the Personnel Research Laboratory computer:

+	Plus	.	Period	(Open Parenthesis
-	Minus	,	Comma)	Close Parenthesis
/	Diagonal	*	Asterisk	\$	Dollar Sign
=	Equals	'	Apostrophe		

Do not use any other signs. Avoid colon (:), semicolon (;), and ampersand (&).

(16) Since the computer prints capital letters only, avoid the use of words or abbreviations which would require lower case. For example, if the abbreviation for Unsatisfactory Reports (URs) were used in the inventory, it would appear as URS in the printouts and might be confused with another abbreviation. However, UR's would appear as UR'S in the printouts and would be acceptable.

V. INTERVIEW REVIEW OF PRELIMINARY JOB INVENTORY

1. *Scheduling of Interviews.* When the preliminary job inventory has been constructed using published source materials, interviews are conducted with experts in the career area to refine the inventory prior to field review. The stage at which interviews are held varies with the complexity of the career area, the availability and quality of published sources, and the convenience with which interviews can be arranged.

For relatively uncomplicated and stable career ladders such as Cook, Carpenter, and Electrician, there is usually an abundance of published sources which are consistent in their descriptions of the job. For such career ladders, an essentially complete inventory can be made from the publications alone; and interviews are held when the preliminary form is completed.

For newly established AFSCs, or for those with new types of equipment or procedures, few detailed Air Force publications may be available. In these cases it is necessary to schedule interviews at a very early stage in preliminary form construction. If a representative installation is close at hand, the job analyst may arrange a visit for observation or interviews at the site. If all using bases are distant, it may be preferable to gather initial information by telephone, letters, or special questionnaire forms. Each case may present unique problems. In all such early interviews and contacts, however, the job analyst's main purposes are to establish a basic duty outline for the job inventory; to learn about or obtain published sources which he does not have; and to gain a preliminary knowledge of problem areas which should be investigated in the job survey. Further interviews are always held after the preliminary form has been substantially developed.

2. *Selection of Technical Advisers.* Although there are wide variations among individuals, 7-skill level airmen are usually the best technical advisers. They typically have about twelve years' experience in the field, have been assigned to a number of bases, and perform both supervisory and worker tasks.

Superintendents at the 9-skill level may be able to provide more information by virtue of their longer experience. However, since these men fill relatively high-level management positions, some of the lower-level tasks and procedures may have changed since they were directly involved with them. In addition, in some fields, the 9-skill level airman superintends several career ladders, including some in which he has had no lower-level work experience.

Airmen at the 5-skill level may provide the best information about the tasks done within their particular shop or office, especially if their 7-skill level supervisor supervises a number of shops or offices. Their knowledge of the entire career ladder, and of supervisory tasks in particular, is usually more limited.

Apprentices at the 3-skill level are familiar with only a very limited number of tasks. However, if it is of interest in the survey, the lowest-level men will provide the most complete information about extra work details such as window washing and lawn mowing, and about tasks they do which are officially assigned to other career areas. Higher-level airmen sometimes omit these tasks from the apprehension that if the "extra" tasks are ever put into print, they will find their way into the official specialty descriptions. As stated before, inventory coverage is usually limited to activities which are central to the career area, unless it is believed that a significant amount of work time is spent on other tasks.

Whenever possible, it is desirable to interview representatives of different major commands. Within a command it may be necessary to interview airmen who work with different types of equipment or procedures, or who are assigned to different duty sections, depending upon the complexity of the field. At the Personnel Research Laboratory, initial interviews are usually conducted with from three to six senior NCOs, each from a different command. These men are selected as subject-matter specialists by their command headquarters and are sent TDY to Lackland Air Force Base to participate in constructing or revising the Specialty Knowledge Tests (SKTs) for their career ladder. Additional interviews are often conducted with airmen assigned to local bases. Typically, the job analyst telephones the base military personnel officer, explains his study, and is put in touch with the chief or director of the work sections of interest. Depending upon the organization of the unit and the completeness of the preliminary inventory, any of several types of interviews may be arranged. (The interviews are scheduled so as to interfere as little as possible with the regular duties of the unit.) If the unit consists of a number of distinct work sections, it is generally best to hold an initial interview with the overall supervisor in order to validate the basic duty outline of the job inventory. Following this review, either a group interview or a series of individual interviews is scheduled with supervisors of specialties in the separate work sections to review specific tasks.

In selecting technical advisers, the job analyst must be flexible. It is not possible to know at the outset which men will give the best and most complete information, nor precisely how many interviews will be required. The number needed is determined as the interviews progress. The job analyst stops interviewing when he and authoritative advisers believe that the preliminary form is well structured and essentially complete. From three to seven interviews are adequate for most preliminary inventories. For the simpler career ladders, one knowledgeable man can sometimes provide a thorough review. As a general rule and to the extent practicable, the more interviews, the better.

3. *Individual versus Group Interviews.* Satisfactory information can be obtained from both individual and group interviews, but some advantages and disadvantages are associated with each method. The following general observations have been independently reported by a number of interviewers.

a. *Individual Interviews.* A series of individual interviews takes more time but yields more new task statements than would a group interview with the same men. The interviewer is free to ask a large number of specific questions relating to each individual's area of special knowledge or experience, without requiring other group members to wait. Furthermore, no individual is overshadowed by other members of the group. One disadvantage is that the individuals occasionally give conflicting information which must somehow be reconciled. For example, they may use different terminology to describe the same tasks.

b. *Group Interviews.* Group interviews are clearly preferable when limited time is available. Another advantage is that consensus can be reached on conflicting terminology or other points of disagreement among group members. Also, information provided by one member often serves as a stimulus to the other members for recalling additional tasks. When the interviewed airmen represent different commands, bases, or job types, the interviewer can insure that task statements are worded so as to discriminate effectively among their different jobs. Usually, little is gained by interviewing a supervisor and his subordinates in a group; the lower-level airmen add little information to that provided by their supervisor when he is present.

c. *Combination of Individual and Group Interviews.* When practicable, the best reviews can be obtained by conducting a series of individual interviews followed by a group interview with either the same men or equally qualified men. The largest amount of information (new tasks and task statement revisions) is obtained from the individual interviews. In the group interview some new tasks are obtained; and the information provided by individuals may be reviewed, reconciled, and corrected.

4. *Instructions to Interview Reviewers.* At the beginning of each interview the job analyst introduces himself, identifies his organization, and explains the purpose of the review. The instructions are given informally, as in the following example.

"We have a preliminary form of a job inventory for the Weapons Career Ladder which we would like you to review. It is basically a duty and task list, covering all skill levels, commands, and job types, and we want to make sure it is complete. The Laboratory is preparing a large-scale survey of the career ladder at the direction of Hq USAF. The object is to collect up-to-date information about the kinds of work performed in the field.

"In the survey, we are going to give each man a copy of the job inventory and ask him to check the tasks he personally performs. We will also ask him to indicate how much time he spends on each task and to give other information about his work.

"When we collect this information from about 2,000 men, it will be analyzed to show differences in the work done by different commands, skill levels, bases, and people in different job types. The results will be used by Air Training Command to evaluate training courses and by Hq USAF to support classification decisions.

"Here is the preliminary form. As you can see, we have a list of tasks broken out under major duty headings. For example, (interviewer shows examples briefly). This draft was made strictly from published source materials, such as the Specialty Training Standard and AFM 39-1. It may be incomplete, and some of the items in it may need to be reworded. We would like you to review this inventory to make sure it is as complete and accurate as possible. Do you have any questions before we start?"

At this point the technical advisers often ask for more details about how the information will be used, and some may ask about the validity of the survey method. All questions are answered freely.

5. *Conducting the Interview Reviews.* Before reviewing tasks it is usually best to begin with the duty outline. The technical advisers are shown a list of the duty headings. These are reviewed one by one for clarity and accuracy, and the men are asked if any duties performed in the field are omitted from the list. If so, the missing duties are added.

Each technical adviser is then given a copy of the job inventory, and the individual tasks are reviewed. The supervisory duties, such as Organizing and Planning, Inspecting, Evaluating, and Training, are postponed until last. Beginning with the first non-supervisory duty in the inventory, the interviewer reads each task statement aloud and asks leading questions about particular items, as in the following examples.

- a. Will everyone know what this means, or is it a local term?
- b. Is this task covered by number 2 above?
- c. This one sounds pretty vague to me. Could we make it more specific?
- d. Would this fit better under Duty E?
- e. This task says "Maintain logs." What kinds of logs does it cover? Maybe we should list them separately.
- f. Are there any other tasks which should be under this duty but which are not listed?

The object of these questions is to produce task statements which will eventually satisfy the rules discussed in section III above. The interviewer does not seek perfectly polished task statements in the interviews, but he accurately records the main substance of the new statements and revisions in a form which can later be edited.

The technical advisers are periodically reminded that a prime objective of the inventory is to discriminate among job types, skill levels, and other categories of workers. It is sometimes necessary to stress the fact that the inventory is not a test and that knowledge items should not be included.

All the tasks in a duty section are covered before going on to the next duty. When the non-supervisory duties are completed, the supervisory tasks are reviewed. These are postponed until last for two reasons: (1) Because of the ongoing nature of many supervisory activities, it is usually more difficult to write specific, time-ratable supervisory items. The review can become bogged down in these problems if supervisory duties are taken first. By raking them last, the men will have had some practice with easier items. (2) The non-supervisory tasks are regarded as the central tasks of the career area and therefore comprise the main body of the inventory. If the non-supervisory duties or tasks are changed in any important way during the review, it may be necessary to revise the supervisory sections accordingly. For example, if new non-supervisory duties are added, parallel tasks should be added to cover the supervision of those duties.

Background information and questionnaire items may also be revised or added during the reviews. Many of these items, such as name, grade, DAFSC, AFSN, base, and months in career field, are standard for all inventories and need not be reviewed. Items specific to the career area which may require review or which may be added include the following:

- a. Types of aircraft worked on
- b. Tools and test equipment used
- c. Level of maintenance to which you are assigned
- d. Present major work area
- e. Work areas in which you have had at least six months' experience
- f. Training courses attended
- g. Type of facility to which you are assigned
- h. Bed capacity of hospital you work in

- i. Number of airmen in your career ladder assigned to your unit
- j. Does your unit use a manual or mechanized system?
- k. Your average typing speed
- l. Do you think a shredout is needed in your career ladder? If so, which of the following areas should be shredded out?
- m. What are the major job types in your career ladder?

Attachment 1 shows examples of background and questionnaire items which have been used in several job inventories. The purposes of these items are (a) to describe the incumbents surveyed; (b) to answer questions of interest to specific users of the survey data; and (c) to help distinguish among significant job types or particular special groups. In general, any worthwhile question may be asked provided it does not touch upon classified subjects or invade the privacy of the surveyed airmen. Rating scales and specific format for the questionnaire items are not developed during the interviews.

Personal identification data are obtained from each technical adviser. This information usually includes name, grade, DAFSC, organization, base, command, job title, notes on work experience, and the telephone extension at which the adviser can be reached for further questions.

In general, senior NCOs are highly cooperative and give responsible and expert reviews. A letter of appreciation (attachment 2) is sent to the commanders of technical advisers who are especially helpful.

VI. REVISION OF PRELIMINARY JOB INVENTORY

1. *Evaluation and Classification of Interview Information.*

a. *Interview Summary.* When the interviews are completed, all preliminary inventory booklets which were used in the reviews are assembled. The proposed new statements, revisions, and comments of the technical advisers are copied from these sources into a single booklet called the Interview Summary. In this booklet, original task statements from the preliminary form are typed on the right-hand side of each double-page spread. The technical advisers' revisions and the interviewer's notes are written on the facing left-hand page. Each item of information obtained in the interviews is coded to indicate (a) the original task statement to which it pertains, and (b) the technical adviser who provided the item. All items referring to a particular task are grouped together. Technical adviser identification and background data are included in the first few pages of the booklet, together with a general description of the interview reviews.

b. *Initial Classification of Interview Information.* Each item of interview information is initially classified using code designations. The initial classification serves to organize the technical advisers' suggestions but does not indicate the final disposition of the items. It is used as an aid in comparing the information yield of different interviews and in reporting the types of information obtained, it is also helpful in collating large amounts of interview information. This step is sometimes accomplished by clerical personnel. The codes, shown below, are entered in the left margin of the Interview Summary.

- N - New task statement
- R - Revision or rewording of an original task statement
- D - Deletion of an original statement
- F - Format revision, e.g., "This task should be listed under Duty B."
- E - Explanation given by the technical adviser for one of the above items. For example, a code of ER means "Explanation for a Revision."
- C - All other comments

c. *Integration of Interview Information.* Final decisions to accept or reject the proposed changes must be made by someone who is highly familiar with the preliminary inventory, since many of the task statements are interrelated. Ideally, the decisions are made by the same job analyst who constructed the preliminary form and conducted the interviews. Further consultation with technical advisers may be required for some items. Most problems can be resolved by reference to published sources or by a telephone call to the field; and some remaining questions can be asked in the field review. The job analyst codes his decisions "✓" for accept or "—" for reject beside each item in the Interview Summary. He edits the approved revisions and adds any special typing instructions. Working from the Interview Summary, the typist then integrates every item marked "✓" into the preliminary inventory.

d. *Format of Revised Job Inventory.* The revised job inventory is typed in the same general format as the preliminary form, with task statements alphabetized under appropriate duty headings. As shown on the sample page of a field review job inventory in attachment 3, specific questions are sometimes asked concerning particular tasks. Background and questionnaire items are arranged in any format convenient for the field reviewers. The inventory is finally reviewed and edited by the project monitor and is prepared for field review.

VII. FIELD REVIEW OF REVISED JOB INVENTORY

1. *Instructions to Technical Advisers in the Field.* Technical advisers in the field are given basically the same instructions as the interview reviewers. On the first page of the field review inventory, the purpose of the inventory is explained, and the technical advisers are asked (a) to add duties and tasks which are performed in their career ladder but which are not listed; (b) to revise task statements which are inappropriately worded; (c) to delete tasks which they know are not performed in their career ladder; and (d) to provide any other comments or recommendations they have for improving the inventory. A copy of the instructions for technical advisers is given in attachment 4. Identification and background data are also obtained from each technical adviser.

2. *Selection of Technical Advisers as Field Reviewers.* From 15 to 100 field reviews are obtained. The number is determined by the complexity of the career area and the estimated amount of information needed to complete the job inventory. Since it is better to obtain redundant information than too little information, large-scale reviews are preferred.

Five copies of each job inventory are sent to Hq ATC, Randolph AFB, for review by appropriate training centers. Other review sites are selected from records at the Personnel Research Laboratory which show the number of men currently authorized in each AFSC at each base in every major command. Bases are selected to obtain representation from major commands, different geographical areas, and units of various sizes, and from any organizations which are of special interest.

Usually, only one technical adviser, a senior NCO, reviews the inventory at each selected base. In some cases separate reviews are obtained from the heads of different work sections. Instructions for selecting technical advisers are given in the cover letters to Consolidated Base Personnel Offices (CBPOs), to whom the inventories are mailed.

3. *Letter to CBPO for Technical Review of Job Inventory.* A cover letter to CBPOs explains the purpose of the inventory and requests that the review be performed by technical advisers with specified AFSCs. A sample cover letter is shown in attachment 5. Included with the cover letter are a letter of authorization from Hq USAF (attachment 6) and a copy of the job

inventory booklet. A suspense date of 10 working days from date of receipt is usually assigned. A longer suspense period is allowed for surveys of overseas or Alaskan Air Command installations, or when more time is requested because of urgent local priorities.

4. *Reproduction of Job Inventory Booklets.* Sufficient copies of the job inventory booklets and CBPO letters are photo-reproduced from typed masters. A few extra copies are retained for Laboratory files and for later use in collating the comments of field reviewers. A sample page from a field review job inventory is shown in attachment 3. An AFPT number (see page 21) is printed on the cover of each field review form.

VIII. CONSTRUCTION OF FINAL JOB INVENTORY

1. *Compiling Field Review Job Information.* The preliminary job inventory is revised on the basis of interview reviews. It is then mailed to technical advisers in the field who are requested to make appropriate additions, modifications, deletions, or other recommendations. The field reviewers, of whom there may be from 15 to 100 distributed among the major commands, then mail the booklets back to a central control office.

a. *First Draft of Field Review Job Information.* Information contributed by each field reviewer is typed verbatim in a first draft of the extracted information. As it is typed the material is organized on separate sheets according to duty category. Each suggestion is coded so that the contributor can be identified and located. This preliminary extraction of write-ins is normally done by clerical assistants.

b. *Preliminary Classification of Field Review Job Information.* All contributed items are then categorized by clerical personnel to facilitate item evaluation by the inventory constructors who will judge the usefulness of items in terms of expansion or improvement of the original inventory. In categorizing the items, some "remarks" code similar to that used in the Interview Summary (see section VI 1b, page 15) is used.

c. *Second Draft of Field Review Job Information.* In the second draft of the field review job information, the overlapping statements of the first draft are eliminated. This elimination often reduces the number of write-ins to about one-fourth of their original number. In this draft the statements are reworded to conform with acceptable inventory standards. The statements are still listed under the duty categories in which they were placed by the technical reviewers.

d. *Integration of Field Review Job Information.* Since many task statements contributed by technical reviewers are equivalent to or overlap with statements already in the inventory, it is essential that the evaluation of write-in information be made by someone who is highly familiar with the original inventory. It is usually most efficient for the task statement evaluation to be done by the same job analyst who constructed the original form. He makes final decision regarding acceptance or rejection of each write-in statement or recommendation, and he revises the inventory accordingly. He should have technical advisers available for consultation during this phase, either through interview or by telephone. As each task statement or suggestion is evaluated, some such notation as the following should be used.

- *(1) Accept (in present duty category)
- *(2) Add to Duty C
- (3) Ambiguous
- (4) Appears to be local terminology
- (5) Not a task
- (6) Covered in A20, B10
- (7) Covered in write-in G11 above

- (8) Equivalent to F7
- (9) Implicit in E6
- (10) Insignificant or trivial
- (11) Task not part of job
- *(12) Make Duty F designation more inclusive
- (13) Outside regular job
- (14) Overlap with G12, G13, G14
- *(15) Revise F5
- *(16) Substitute for the more specific H3
- (17) Sub-task of G9
- *(18) Too general - use alternate breakdown as follows
- (19) Too specific
- (20) Vague - presumably covered by listed tasks

The actions to be taken in revising the inventory are marked with an asterisk or are otherwise designated for quick recognition so that the final integration of field review information can be done by clerical personnel. The added task statements are inserted in alphabetical order under appropriate categories, and tasks are renumbered under each duty. After a final thorough proofreading, the revised duty and task statements are ready for publication in a final job inventory.

2. *Revising the Background Information Section.* Recent research on the Air Force method of job analysis has demonstrated the importance of collecting information concerning job-related variables at the same time that data are obtained about specific work activities. Tentative background information pages are sent to technical advisers for field review along with the list of duties and tasks. They are asked to complete the background information items and to note any questions that appear ambiguous or that may present difficulties because of format or wording. They are also requested to suggest additional background information items.

In some instances, exploratory questions about tools and equipment used, or about components worked on, may be included; or technical advisers may be asked to indicate work areas which present particular problems. A study of the distribution of responses made by technical advisers on the background information pages provides data that lead toward improvement of item format and wording. Cues are obtained which point to the need for clarifying items or directions in order to provide desired information. Revisions are made in the background information section that incorporate suggestions and recommendations of technical advisers. The revised background information section is then assembled with the revised duty and task statements and a photo-copy is prepared from which the final job inventory is reproduced.

3. *Job Inventory Task Rating Factors.* In using the Air Force job analysis method as presently developed, each incumbent is required to supply identification and background information and to indicate the tasks he performs. In addition, he normally rates each task he performs on two factors, a primary factor upon which the job grouping programs and consolidated job descriptions are based and a secondary factor determined by research needs or by the requirements of some using agency.

a. *Primary Task Rating Factors.* Usually the primary task rating factor has been some measure of time spent on the task. Several time-spent rating scales have been used. In some of the earlier inventories attempts were made to get absolute time-spent ratings by asking incumbents to estimate the frequency of task performance and the time required to do the task once. By multiplying these values the total time spent on the task could be determined. Attempts were also made to have incumbents rate the percentage of time spent on each task or duty. Both of these methods of obtaining time ratings were unsatisfactory. In most of the

current inventories a relative time-spent scale is used. This is the amount of time the individual spends in performing a task compared with time spent on other tasks he does. The computer is used to calculate the percentage of total work time spent on each task. Five-point, seven-point, and nine-point scales have been used. The seven-point time-spent scale is used most often since it is somewhat more precise and more reliable than the five-point scale. However, the increase in precision and reliability afforded by the nine-point scale is probably not sufficient to justify its use.

(1) *Relative Time-Spent Task Rating Scale.* Compared with other tasks you do in your job, the time you spend on the task you are rating is

- 1 Very much below average
- 2 Below average
- 3 Slightly below average
- 4 About average
- 5 Slightly above average
- 6 Above average
- 7 Very much above average

Tasks which are not rated are treated as though rated zero.

(2) *The Hemphill Part-of-Job Scale.* The Part-of-Job scale was developed by Hemphill (1960) for use in obtaining dimensions of executive positions. In completing a comprehensive inventory of managerial tasks, Hemphill required the executive with respect to each item "to consider and weigh its importance, frequency of occurrence, relevance, or any other factor which you think determines to what extent the item is part of the position." Several of the points on the scale are undesignated which may bias the ratings obtained. The Hemphill scale appears as follows:

- 0 Definitely not a part of the position
- 1 Under unusual circumstances may be a minor part of the position
- 2
- 3
- 4 A substantial part of the position
- 5
- 6
- 7 A most significant part of the position

Despite the vagueness of definition and the undesignated points, Cragun and McCormick (1967) reported that Air Force officers considered this scale more satisfactory than either time-spent or importance scales in rating their jobs. Modified versions of the Hemphill scale, with all points defined, are being used experimentally.

b. *Secondary Task Rating Factors.* Two kinds of secondary task rating factors have been used. The more usual has been a continuous variable presented in a relative rating scale of equal intervals. The other kind of rating factor has been a categorical variable in which discrete points or non-continuous intervals are designated. By using subsamples, ratings on several factors may be obtained during the same survey.

(1) *Continuous Variable Task Rating Factors.* In analyzing the continuous variable secondary rating factor for any group, the computer gives the number of incumbents rating each task in the inventory and computes the means and standard deviations of their ratings. The following continuous variables have been used with varying degrees of success in relative task rating scales.

- (a) Complexity of the task
- (b) Criticality of task to unit mission
- (c) Difficulty of learning the task
- (d) Difficulty of learning the task by OJT
- (e) Difficulty of task performance
- (f) Experience needed for task performance
- (g) Extent of training in school or work experience
- (h) Frequency of task performance
- (i) Importance of task
- (j) Part of job covered by task
- (k) Satisfaction in performing task
- (l) Special training necessary to perform task
- (m) Supervision required in task performance
- (n) Technical assistance required to perform task
- (o) Time spent in task during entire career
- (p) Training emphasis task should have
- (q) Training required for task performance

(2) *Categorical Variable Task Rating Factors.* In analyzing the categorical secondary rating factor for any group, a new computer program will provide a frequency distribution showing the number of incumbents in the group who responded to each category. Examples of some categorical variables that have been used as secondary factors appear below.

- (a) *Method of Learning the Task*
 - 1 College or University Course
 - 2 Air Force Training Course
 - 3 Training Given by Industry
 - 4 On-the-job Experience
 - 5 Technical Publication or Manual
- (b) *Special Training Required*
 - 1 None or less than 1 month
 - 2 1 to 2 months
 - 3 3 to 5 months
 - 4 6 to 11 months
 - 5 12 to 17 months
 - 6 18 to 23 months
 - 7 24 months or more
- (c) *Task Performance*
 - 1 Can do now
 - 2 Can learn in a few hours
 - 3 Can learn in a few days
 - 4 Can learn in a few weeks
 - 5 Can learn in a few months
 - 6 Would take more than six months to learn
 - 7 Would take more than a year to learn

IX. SELECTION AND LOCATION OF OCCUPATIONAL SURVEY SAMPLES

1. *Sample Size.* The first step in determining the sample of officers or airmen to be surveyed is to find out the total number of persons in the Air Force who are assigned in the Utilization Field or Career Ladder of interest. The number available for survey is found by consulting a roster derived from Uniform Officer Record and Uniform Airman Record files. This document, prepared by the Personnel Research Laboratory, gives totals for each skill level in each AFSC assigned world-wide. If the number (N) in the Utilization Field or Career Ladder is 400 or more, a work request is submitted to the Statistical Analysis Division of the Personnel Research Laboratory for a more detailed roster. This latter roster shows for the particular Career Ladder the total in each skill level by command, geographical area (overseas or continental United States), responsible Consolidated Base Personnel Office (CBPO) code, and Station code as in the following example. The first two characters of the code refer to the CBPO, and the last four designate the station. A sample portion of such a roster is shown in attachment 7.

In general, an attempt is made to obtain a sample of 3,000 cases for each career ladder in the survey. If there are fewer than 3,000 cases available, a 100 per cent sample is used. If more than 3,000 are assigned in a career ladder, cases in each DAFSC are selected in proportion to the numbers available. However, all cases are selected if the total for any DAFSC assigned to a major command, CONUS or overseas, is 15 or fewer. (New computer programs being written will permit analysis of Ns as large as 10,000 cases.)

2. *Selecting Representative Samples.* In conducting any occupational survey, an attempt is made to obtain a sample which represents the distribution of individuals in the career ladder according to command and skill level as it exists in the Air Force. By using representative samples the survey results can be interpreted as reflecting an accurate picture of the career ladder as a whole. The number of CBPOs is kept to a minimum where this consideration does not jeopardize the representativeness of the sample. Within this limitation, random sampling is used. When only a part of the incumbents at a particular station is selected, the CBPO is directed to identify individuals for survey according to the last two digits of their service numbers.

3. *Locating and Addressing CBPOs.* When stations have been selected where incumbents to be surveyed are located, the responsible CBPO for each station is identified from the USAF PAS Directory. Addresses of CBPOs and stations are also listed in the PAS Directory. ZIP codes are obtained from the current National ZIP Code Directory.

4. *Locating and Addressing Individuals.* When through previous surveys or other sources, officers or airmen have been identified by name, they can be surveyed individually either through the appropriate CBPO or directly. A computer printout includes the CBPO code, station code, major command code, Air Force service number, name, grade, primary AFSC and duty AFSC. This information can be rostered, or individual labels, which include also the mailing address and ZIP code of the individual to be surveyed, can be printed for attachment to the inventory envelope.

X. REPRODUCTION OF JOB INVENTORY MATERIALS

1. *Assignment of AFPT Numbers.* The Air Force is very alert to attempts to conduct unauthorized surveys. The AFPT number on survey materials shows that the survey is official and is authorized by the Air Force. AFPT numbers in the 80-XXX series have been allocated to the

Personnel Research Laboratory for assignment to experimental occupational survey documents. AFPT numbers in the 90-XXX series have been allocated to the Job Specialty Survey Division of the Air Training Command for assignment to operational occupational survey materials.

Every document used in an occupational survey must have an AFPT number and a date. For example, the lower left-hand corner of the outside cover of each booklet for the Electrical Power Production Career Ladder inventory bears the number and date AFPT 80-092 15 Jun 1967. The preliminary inventories used for the field review were designated AFPT 80-092(R), and the administrative directions used with the survey carried the number AFPT 80-092(A).

2. *List of Job Inventory Materials to be Reproduced.*

- a. Preliminary job inventory for interview review - approximately 25 pages (4 to 10 copies).
- b. Job inventory for field review - average about 28 pages (15 to 100 or more copies).
- c. Final form of job inventory for survey - average about 30 pages (600 to 3,000 copies).
- d. Letter of transmittal to CBPO re technical review of job inventory (one page).
- e. Directions to technical adviser field reviewers (one page included in Field Review Job Inventory).
- f. Covering letter to CBPO re administration of job inventory (one page).
- g. Letter of information to commands (one page).
- h. Administrative directions for survey administrator (four pages).
- i. Instructions for self-administration of job inventory (one page, included in job inventory booklet).
- j. Letter, Hq USAF, Data Collection for Occupational Analysis Research, 29 January 1965 (one page).
- l. Excerpt from paragraph 2, attachment 1, AFM 35-2 (one page).
- m. Follow-up letter to trace inventory booklets not received from field (one page).
- n. Letter of appreciation sent to technical adviser's supervisor or commander (one page).

Examples of some of these job inventory materials are shown in the attachments to this guide.

3. *Varityping Required.* Varityping is required for the front cover, for four to eight background information pages, and for the page headings and rating scales on the duty-task list pages. The duty and task statements are entered in elite typescript.

XI. PACKAGING AND MAILING JOB INVENTORIES

1. *Mailing to Consolidated Base Personnel Offices (CBPOs).* In conducting operational surveys of airman incumbents, the number of airmen in the specialties to be surveyed who are under the jurisdiction of each CBPO is first determined. This information is obtained from the Statistical Analysis Division of the Personnel Research Laboratory. The computer is used to sort and roster the latest Uniform Airman Record (UAR) or Uniform Officer Record (UOR) files for the career ladders of interest. Then packages of survey materials are prepared. Each package contains the letter of instructions to the CBPO, "Administration of Job Inventory," a Hq USAF (AFPDPCS) letter authorizing direct communication with CBPOs, the list of incumbents to be surveyed by the particular CBPO, a sufficient number of job inventory booklets, and two copies of the appropriate administrative directions. CBPO address labels as printed out by the computer are attached. The CBPOs, upon receipt of the materials, arrange for the designated incumbents to complete the inventories in one or more groups under the administration of a test control officer or other administrator.

2. *Mailing to Job Incumbents Directly.* In some instances, in conducting surveys in officer career areas, survey materials, including a list of officers to be surveyed, are sent to CBPOs who then distribute the inventory booklets to designated officers. The officers complete the inventories individually and return them to the respective CBPO. The CBPOs package the booklets and mail them to the central receiving office. More usually, however, address labels are prepared by the computer for each officer to be surveyed. These labels are attached to packages of survey materials. Each package contains letters of explanation and authorization, directions for completing the inventory, and a return envelope for mailing the completed booklet back to the central receiving office.

3. *Letter of Information to Command Headquarters.* As shown in attachment 8, a letter of information is sent to the headquarters of each major command surveyed. The cover letter states the purpose of the survey. A letter of authorization is inclosed, together with the Lists of Airmen to be Surveyed (attachment 9) which were sent to the various bases.

XII. ADMINISTRATION OF JOB INVENTORIES

1. *Directions to Consolidated Base Personnel Offices (CBPOs).* In operational application of the Air Force method of occupational analysis, job inventories are always administered by mail. Packages of booklets are sent to CBPOs at locations where personnel to be surveyed are assigned. A letter of instructions to the CBPO is inclosed with each package. This letter includes as attachments a Hq USAF letter of authorization, a list of incumbents to be surveyed, the required inventory booklets, and administrative directions. Samples of all of these materials, except the inventory booklets, are presented in attachments 6, 9, 10, and 11 of this guide.

2. *Group Administration of Job Inventories.* The inventory administrator and his proctors are assigned by the CBPO. The job inventories are usually administered to groups of incumbents assembled in base testing rooms. The inventory booklets and pencils with good erasers are distributed before the incumbents arrive. As the incumbents arrive, the administrator makes certain that only eligible incumbents are seated. He then reads the administrative directions. As the men are completing the inventory, the administrator and proctors circulate about the room to see that responses are being entered according to instructions. Close proctoring is required to insure that each incumbent understands what is required. As each man finishes the inventory, the administrator or a proctor goes over the booklet to see that responses have been properly entered. The completed booklets are then packaged by the CBPO and mailed back to the central receiving office.

3. *Individual Administration of the Job Inventory.* In general, job inventories are not administered to Air Force officers in groups. The inventory booklets are often sent to the CBPO for distribution to selected officers by name or by DAFSC. Completed booklets are returned to the CBPO by a specified suspense date for transmittal to the central receiving office. Instructions for self-administration of the inventory, as shown in attachment 12, are included with each inventory booklet. In addition, abbreviated instructions usually appear on the first page of the inventory itself (attachment 1). In some cases, airmen at remote sites who cannot be called in to a central base testing room are surveyed individually by the CBPO. These airmen usually depend only upon the instructions in the front of the inventory booklet.

In recent surveys of officers, job inventories have been mailed to individual officers who have been selected for survey without going through CBPOs. This procedure has not been tried out extensively but appears to offer certain advantages. Address labels printed out on the computer are attached to envelopes containing the appropriate job inventory, instructions, and a return envelope.

4. *Responding to the Job Inventory.* The incumbent whose job is being surveyed is informed that the inventory method is used for determining the duties and tasks performed by Air Force personnel. It is emphasized that the procedure is not a test, and that the results will not be used to evaluate the incumbent, his commander, or his unit.

In responding to the inventory, the incumbent first completes the background information section and then proceeds to provide information about the duties and tasks he performs. He reads each task statement under every duty category in the inventory and checks each task he performs. Below the list of tasks under each duty, he adds tasks he does which are not listed. If tasks he performs do not fit under any duty, he writes them in at the end of the inventory. He then rates each task he has checked or added on a TIME SPENT rating scale. In making this rating he compares time spent on the task he is rating with time he spends on each of the other tasks he does. Following instructions given, he then goes through the inventory again and rates each task on another factor. When he has completed his rating, he checks his work and turns his booklet in to the inventory administrator, or to the CBPO if he has completed the inventory independently.

5. *Follow-up Procedures.* As stipulated in Hq USAF (AFDPDPCS) letter of 29 January 1965, subject, "Data Collection for Occupational Analysis Research," (attachment 6), the Director of Personnel of the appropriate command is provided with the survey schedules sent to local commanders, CBPOs, or test control officers. It is understood that schedules are not to interfere with priority command operations. Adjustments to schedules necessitated by operational commitments may be made by local commanders who are directed to inform the agency responsible for the survey of such changes. If neither completed booklets nor a letter stating reasons for delay are received within approximately 30 days after the suspense date given, a follow-up letter is sent to the delinquent unit. (See sample letter in attachment 13.) This letter usually elicits the information that booklets were not received, incumbents have been transferred, or other reasons for non-compliance. If no reply is received to the first letter of inquiry, a second letter is sent by certified mail. In rare cases, when the second follow-up also elicits no reply, the appropriate command is informed of the breakdown in communications.

XIII. RECEIVING, SCANNING, AND CODING JOB INVENTORY BOOKLETS

1. *Receiving.* The completed inventory booklets, as received by mail, are carefully logged by the central receiving office into the same book in which records were made of the number of booklets sent out and the CBPOs, organizations, bases, and installations to which they were sent. The percentage of return can then be readily computed. Delay in returns can also be quickly detected; after a reasonable interval, letters of inquiry are sent out.

2. *Scanning.* The booklets are scanned for completeness. Sometimes booklets are returned which are entirely blank or in which the background information section is completed but no tasks are rated. Such cases are immediately eliminated from further consideration.

3. *Coding.* Case control numbers are next entered on the front cover and in the space designated on the first background information page. For a particular survey, four-digit case control numbers are usually assigned consecutively beginning with 0001. Extreme care must be taken to insure that the number placed inside the booklet is the same as the number on the cover. Base or installation is usually coded using the official four digit alpha code as set forth in Volume I-BY, AFM 300-4, Data Elements and Codes. Other items also may be coded depending upon the requirements of the survey. Booklets are then sorted according to whether or not they contain write-in information.

XIV. INTEGRATING ADDED JOB INVENTORY INFORMATION

Write-ins provided by the surveyed incumbents are extracted, classified, and finally accepted or rejected using basically the same system described in section VIII, paragraph 1, *Compiling of Field Review Job Information*. However, since the volume of information is much greater, some variations in procedure are necessary. The write-ins are normally passed through three drafts:

1. *Draft One: Raw Data.* A typist sets up the following pages: one page for each duty in the inventory, one for the blank page at the end of the inventory booklet, and one for each questionnaire item designed for a non-keypunched response. A duty heading or questionnaire item is typed at the top of each blank page.

The inventory booklets which have previously been identified as containing at least one write-in are then gone through one at a time. The written statements in all booklets are copied verbatim and are grouped according to the duty or questionnaire heading under which they were written. Each item is coded in the margin to show the case control number and skill level of the individual who provided it.

2. *Draft Two: Tasks Assigned to Proper Duties.* Most new task statements and comments are written on the blank page at the end of the inventory, and some tasks are written under inappropriate duty headings. To make task comparisons easier, the job analyst or someone else familiar with the inventory goes through Draft One and codes all tasks to show their proper duty sections. Some elimination of obviously unacceptable or duplicate items is also performed at this stage. The remaining items are transferred to Draft Two where they are listed under appropriate duty headings. A margin of about one-third of the page is left on this draft for classification and disposition notes concerning each write-in item.

When Draft Two is prepared, all items are classified, edited, and finally marked "✓" for accept or "-" for reject, as described in section VIII, paragraph 1. Explanations for final decisions, and editorial instructions, are entered in the margins of Draft Two.

3. *Draft Three: Final Job Inventory Revision.* All new tasks or revisions marked as accepted ("✓") in Draft Two are transferred to a final draft. From this draft, a master copy of the revised job inventory is prepared. In preparing the final inventory revision, all of the new task statements are collated by interspersing them with the original statements in alphabetical order under each duty. The final revision is used as a basic source document for future surveys.

XV. KEY PUNCHING AND VERIFYING JOB INVENTORY DATA

1. *Key Punching from Inventory Booklets.* For efficient key punching, there should be no necessity for decision making by the key puncher. The key puncher should not be required to edit nor to interpret the data to be punched. Before key punching is begun, accurate directions for the key punchers must be prepared. These directions take the form of precise Electrical Accounting Machine Card Column Layout sheets. The card layouts not only designate exactly what data are to be punched in each card column, but also make clear what is to be done about missing or ambiguous information. Sample layout sheets are shown in attachment 14.

a. *Key Punching Background Information.* As many as six cards for each case may be needed to punch the background information section of the inventory. Both alpha and numeric characters are used in punching the identification data and responses to the various job-related related variables in this section. The case control number is punched into the first four columns of every card, and columns 76 through 79 are allocated to study (i.e., survey) identification.

Since only 18 columns are allowed for key punching the NAME, the key punchers are instructed to punch the last name in full and as much of the first name as possible and still leave space for the middle initial and Jr, Sr, II, or III. For example, Ferguson, Alfred W., Jr. is key punched FERGUSON ALFR W JR, and Michaelson, James E., II is key punched MICHAELSON JA E II.

One card is used to punch ORGANIZATION and BASE OR INSTALLATION. ORGANIZATION is punched as reported, and the BASE OR INSTALLATION is punched in four alpha character code which has been entered during the receiving, scanning, coding procedures previously mentioned. One card is also used for key punching PRESENT WORK ASSIGNMENT (JOB TITLE). This information is key punched in alpha characters exactly as written by the incumbent including any misspellings or abbreviations.

The "Remarks" section of the layout for the background information pages is used to clarify key punching procedures by using directions such as the following.

(1) "12" punch entire field for missing information; e.g., if PRIMARY AFSC is not recorded, punch "+ + + +" in columns 35-39.

(2) Right justify TOTAL MONTHS and fill in leading zeros; e.g., 008, 018.

(3) If NAME is missing, punch "NOT RECORDED." In columns 5-11 punch "1" for YES, "2" for NO; "12" punch for missing information.

b. *Key Punching Task Rating Data.* Entries in the CHECK IF DONE column of the Duty-Task List pages of the job inventory are not key punched. The numeric task rating responses in the TIME-SPENT column are key punched beginning in column 5 of the card following the background information cards. (The case control number is punched in the first four columns).

The 80 columns in cards used to punch task ratings are allocated as follows:

<u>Column Number</u>	<u>Number of Columns</u>	<u>Description of Data</u>
1-4	4	Case Control Number
5-73	69	Task Ratings
74-75	2	Card Number
76-79	4	Study Identification
80	1	Task Rating Factor Number

Sixty-nine task ratings on one factor can be punched in one card. The number of cards per case required to punch the task ratings depends upon the length of the inventory as follows:

<u>Number of Tasks</u>	<u>Cards Required</u>	<u>Number of Tasks</u>	<u>Cards Required</u>
1-69	1	277-345	5
70-138	2	346-414	6
139-207	3	415-483	7
208-276	4	484-552	8

When a secondary task rating factor has been used, double the number of task rating cards are required. The secondary task rating cards are punched to follow the primary task rating cards.

In the "Remarks" section of the layout for task rating pages, directions such as the following may appear.

(1) Valid response for each item in columns 5-73 is 1 through 7.

(2) If no response is written, punch zero (0) for that task.

c. *Verifying Job Inventory Data.* Accuracy of punch card job inventory data is extremely important. Punch card errors produce costly delays in data processing when the elaborate computer programs involved will not run, and time-consuming troubleshooting procedures must be used to locate the source of the stoppage. For all job analysis data prepared for analysis on the Personnel Research Laboratory computer, 100 per cent verification of both the background and task rating punch cards on a key verifying machine is mandatory. An error tolerance not greater than one per cent by card volume must be insured. Illegitimate blank columns, double punches, card duplications, and out-of-range punches must also be detected and eliminated. This meticulous verification almost doubles the cost of key punching but is less expensive in the long run than repunching card decks that are found to be in error when computer programs will not run.

2. *Key Punching from Answer Sheets.* In order to increase the efficiency of key punching job inventory data, some exploratory studies are being conducted in which incumbents use answer sheets instead of making task rating responses directly in the inventory booklets. The background information section will remain essentially unchanged and requires the key punching procedures already described.

Task ratings will be made on answer sheets. For rating tasks on the primary factor, the front and back of one sheet will be used. The front will provide for making ratings of tasks numbered 1 through 240, and the back will have space for rating tasks 241 through 480. The rating for each task will be indicated by circling a number from 1 through 7. The key punch operator will punch the circled number or zero if no number has been circled. Task ratings on the secondary factor will be made in the same way on both sides of a second answer sheet. The circled numbers or zeros will be key punched as before. As in key punching from inventory booklets, card column layout sheets will guide the key punch operator. An example of a general answer sheet designed for use with job inventories appears in attachment 15.

3. *The Role of the Optical Scanner.* Considering the progress that is being made in the development of optical scanners, it appears that eventually job inventory responses will be read electronically and transferred from answer sheets to punch cards or electronic tape for further computer processing. In the present state-of-the-art, however, there is no available scanner that will accurately interpret either numeric or alpha information that has been entered by hand.

It may be that by format redesign, some coded responses amenable to optical scanning can be substituted for handwritten responses now required in the background information sections of job inventories. Such redesign, however, will not eliminate all handwritten responses and will require considerable time and exploratory research before it becomes practicable. In the immediate future, even with an optical scanner, the background information data must be key punched using the procedures previously described.

It appears to be quite feasible to process task rating responses by using presently available optical scanners. Specially designed answer sheets will be required, and job analysis procedures will require some modification. Until they are tried out, however, it is uncertain whether optical scanner answer sheets will prove practical for use by job incumbents under operating conditions.

XVI. COMPUTER ANALYSIS OF JOB INVENTORY DATA

1. *Analysis of Background Information.* In the background information section of the job inventory, besides incumbent identification items, data are obtained on two kinds of variables: continuous variables and discrete variables. In the analysis, frequency distributions are obtained for both types of variables, and means and standard deviations are computed for the continuous variables.

a. The following are examples of continuous variables for which frequency distributions, means, and standard deviations are computed.

- (1) Total months at present base
- (2) Total months in career field
- (3) Total months in DAFSC
- (4) Total months in present work assignment
- (5) Total months active federal military service
- (6) Years of education completed
- (7) Rating of amount of interest in job
- (8) Rating of extent to which talents and training are utilized
- (9) Percentage of time spent on each type of engine listed
- (10) Relative time spent on each unit of equipment listed
- (11) Number of subordinated reporting directly to incumbent

b. The following are examples of discrete variables for which frequency distributions are compiled.

- (1) Grade
- (2) Command
- (3) Method of assignment
- (4) Reenlistment-plans
- (5) Location of job inside or outside continental United States
- (6) Courses attended
- (7) Type of maintenance organization to which assigned
- (8) Listed areas in which job is located

2. *Computation of Percentage of Time Spent.* The relative time-spent task ratings in the job inventory are converted to percentages of estimated time spent by summing all of an incumbent's entries in the TIME SPENT column. This total is taken to represent 100 per cent of his work time. Each entry is divided by the total, and the quotient is multiplied by 100 to give the percentage of time spent on each task. Any person performing one or more tasks in a duty is said to perform the duty. The percentage of time spent by an incumbent on each duty is obtained by summing the percentages for all his tasks in that duty.

3. *Special Group Job Descriptions.* The computer will generate a standardized composite job description, made up of tasks performed, for any group of individuals where the cases can be defined in terms of background variables. A group may be identified in terms of current skill level, grade, command, time on the job, geographical location, kind of base, amount or kind of previous training, or any other variable for which information has been obtained. The computer program has great flexibility. Special group job descriptions can be computed in terms of values or ranges of values on as many as nine variables simultaneously. Thus, it is perfectly feasible to obtain a description for a group of weather officers, say, who are all majors with regular commissions, hold a Bachelor's degree in engineering and have completed a course in high-altitude forecasting, have a minimum of 24 months' experience as meteorologists, are

assigned to an overseas command, and are less than 35 years of age. Routinely, the computer analysis of the occupational survey data includes for each officer or airman special group the percentage of the group performing each task; the average percentage of time spent by members of the group who perform the task; the average percentage of time spent by all members of the group, both performers and non-performers of the task; and the cumulative sum of the average percentage of time spent by all members. This last entry makes it possible readily to identify the tasks that consume a given percentage of the total time of the group. Separate tables are published for duties and tasks, which appear in descending order of time spent on them.

4. *Job Type Descriptions.* In any utilization field or career ladder, there are many jobs which for all practical purposes are identical. The individuals who hold these similar jobs are said to belong to the same job type. In order to identify these areas of specialization, an automated job-clustering program is utilized to analyze the task data provided by the occupational survey. The program groups together incumbents who perform essentially the same work activities, regardless of grade, skill level, experience, or assignment. In the grouping program, the computer compares each individual with every other individual in the survey sample in terms of tasks performed or percentage of time spent on them. The computer locates the two persons with the most similar jobs and generates a single job description which accounts for their work time with the least error. In successive stages the computer adds other incumbents to this group or forms new groups based on the similarity of their jobs. This process is continued until all incumbents are grouped into a single cluster. Using computer-generated records of group membership and homogeneity, the investigator identifies significant job types formed during the clustering process. Composite descriptions of these job types are published in much the same format as the special group job descriptions. Job type descriptions are especially useful in determining the need for new specialties or new shredouts in existing specialties and for identifying areas requiring specialized training.

5. *Average Overlap of Member Descriptions with Group Job Description.* For each special group job description or job type description the percentage of overlap is computed between each member description and the parent group job description. The average of these overlap values shows the extent to which the group job description covers the work of the average individual in the group. The background information obtained for members of any group specified is rostered in descending order of overlap values so that the individual whose job description most resembles that of the group appears at the top of the list. The format of the rosters is designed for ready identification of the variables.

6. *Group Similarity Analysis.* For purposes of selection and training, it is often desirable to know the extent to which the work performed by one group resembles the performance of another group. To meet this need, programs have been written for computing and reporting the overlap values among any specified set of job descriptions in terms of percentage of time spent on tasks. These programs compute and report a matrix of similarities among all special and job type groups identified in the analysis. As a rule of thumb, overlap values of more than 50.00 indicate high similarity, and overlap values of less than 50.00 indicate low similarity between groups. This output provides a condensed picture of the interrelationships among job types and special groups. It is especially useful in detecting the need for new shredouts or for combining existing shredouts.

7. *Group Difference Descriptions.* At times, there is need to know the extent to which groups differ in tasks performed. The group difference program produces and publishes descriptions which reveal differences between any two job types or other groups specified. Difference values of group job descriptions are computed for each task in the inventory in terms of the differences in percentage of the members in each of the two groups who perform the task and

also in terms of the differences in percentage of work time spent on each task by members of each group. Tasks may be ordered for either of the two difference scores in terms of the magnitude of the difference from the greatest positive difference through zero to the greatest negative difference. In either instance, both sets of difference values are published.

8. *Analysis of Secondary Task Rating Factors.* When an occupational survey is conducted, an incumbent responding to a job inventory is normally required to check the tasks he performs, to rate as a primary factor the relative amount of his work time spent on those tasks, and to rate the tasks on some designated secondary factor such as difficulty, frequency of performance, or training required. (See section VIII 3b.) Often, in a single survey, data are collected for three or four secondary factors, although a given incumbent provides information relative to only one. Thus, out of a 1,000-case sample, four groups of 250 individuals might each respond to a different one of four secondary task rating factors. A computer program has been developed which automatically breaks out the cases for each factor, analyzes the data, and publishes the results. Analysis of these secondary factors provides summary information by task for any specified group, including job type groups resulting from application of the first factor, or for groups identified in terms of background information. The reporting table in standard format identifies the factor in the table heading, lists the tasks in inventory order, and shows in the body of the table the number of incumbents rating each task and the means and standard deviations of their ratings on each task. A new computer program will provide a point distribution for categorical variables.

9. *Task Summary Tables.* Task summary tables which consolidate task information are generated by a complex computer program. One table shows for each special or job type group the percentage of members who perform each task. The rows in the table are ordered according to tasks in the inventory while the columns identify special groups and job types. For example, job descriptions can be computed for several experience groups — individuals who have been in the career ladder less than 6 months, 6 to 11 months, 12 to 23 months, 24 to 47 months, and so on. The table then indicates the percentage of incumbents in each experience group performing each task. Analysis of such data reveals those tasks which are assigned to new men and those which are normally allocated only to experienced individuals.

A similar task summary table shows for each group the average percentage of time spent by all group members on each task. Again, groups are identified across the top of the table by code numbers, and the tasks in inventory order are designated in the left-hand column of the table by such numbers as A001, A002, and A003, which represent tasks 1, 2, and 3 of duty A.

10. *Background Information Tables.* In the analysis of most surveys, three lists of background information are printed out. The order of the cases in these tables is called a KPATH sequence, named for the FORTRAN computer program by which they are obtained. The first table includes for each incumbent, the KPATH sequence number, case control number, major command, grade, primary AFSC, duty AFSC, number of tasks performed, months in duty AFSC, months at present base, months in present assignment, months in career field, together with such other information as courses attended, equipment worked on, and method of obtaining duty AFSC.

The second background information table gives the KPATH sequence number, case control number, and incumbents' entries under "Present work assignment (job title)."

The third background information table includes the KPATH sequence number, case control number, and base or installation.

The background information for members of any job type may be found within a certain KPATH sequence range, which is specified in the heading lines of the job type description. The background information tables, therefore, provide valuable data for naming job types and for highlighting similarities and differences among job types.

XVII. THE OCCUPATIONAL SURVEY REPORT

1. *General.* After job inventories have been administered and the data have been key punched and analyzed, a single comprehensive Occupational Survey Report is prepared for the entire survey sample. For some purposes, however, separate reports are made available for describing particular job types, special groups, shreds, or organizational units.

2. *Production of Request Cards.* As each job description or table is produced by the computer, a request card is automatically punched out. This request card can be used to call the proper program to publish the same output again whenever needed. In reporting survey results, a program has been developed which utilizes these request cards. The program allows the arrangement of the request cards, and hence the publication of the resulting tables and job descriptions, in any order desired. The program also permits the introduction of verbal text in free form as needed for description or explanation, numbers the pages, and prints a table of contents. The computer is used as the publication equipment for producing required copies of the final comprehensive Occupational Survey Report.

3. *Contents of the Occupational Survey Report.* The Occupational Survey Report will normally include such sections as the following:

- a. Table of Contents
- b. Introduction
- c. Special Group Job Descriptions
 - (1) Specialty Group Job Descriptions
 - (2) Active Federal Military Service Group Job Descriptions
 - (3) Job Descriptions of Course Graduates and Non-Graduates
 - (4) Job Descriptions of Groups With and Without Directed Duty Assignment
- d. Job Type Descriptions
- e. Group Overlap (Similarity) Matrix
- f. Group Summary
 - (1) Per Cent Members Performing by Task
 - (2) Per Cent Time Spent by Task
- g. Overlap of Members with Group Job Descriptions
- h. Group Difference Descriptions
- i. Dictionary of Variables
- j. Distribution of Background Variables
 - (1) Special Groups
 - (2) Job Types
- k. Analysis of Secondary Factors by Groups
- l. Appendix 1
 - (1) Background Information
 - (2) Present Work Assignment
 - (3) Organization and Base
- m. Appendix 2
 - Tasks and Duties in the Survey Job Inventory

INTELLIGENCE OPERATIONS 204X0 and PHOTO INTERPRETATION 206X0

INSTRUCTIONS

1. To qualify for this survey you must have a Duty AFSC of 20430, 20450, 20470, 20490, 20630, 20650, 20670, or 20690, and you must have been in the same duty assignment for at least six weeks.
2. First, fill in the BACKGROUND INFORMATION page. Then turn to DUTY A on page 1 of your booklet and read the entire inventory to see how well your job is covered. Be sure to read all the tasks under every duty. As you read, place a check mark in the Check Column beside each task you do. Do not confuse work you do yourself with work you supervise. The first duties in the inventory are supervising duties. These are followed by work performance duties. If you supervise some tasks and also perform tasks yourself, you will check both kinds of tasks.
3. In the blank spaces at the end of the list of tasks under each duty, write in all the tasks you do in that duty that are not listed. If some tasks you perform do not fit under any of the duties in the booklet, write them on the blank page at the end of the booklet.
4. Turn back to DUTY A on page 1 again. You are now to make TIME SPENT ratings for all the tasks you have checked or added. TIME SPENT means the total time you spend doing the task you are rating, compared with the time you spend on each of the other tasks you do in the entire inventory. The 7-point TIME SPENT scale you will use is at the top of the TIME SPENT column. You use the rating "1" if you spend a very much below average amount of time on a task; you use "2" for below average time; and so on up to a rating of "7" if you spend a very much above average amount of time on the task.
5. When you have finished your TIME SPENT ratings turn back to DUTY A on page 1 again. You are now to make a rating to show how you learned to do the tasks you checked or added. Using the TRAINING scale rate a task "1" if you learned it all from school training; rate the task "2" if you learned almost all of it from school training and so on up to a rating of "7" if you learned it all from work experience.

Attachment 1

BACKGROUND INFORMATION FOR OFFICER JOB INVENTORIES

INSTRUCTIONS: Check the box opposite each item that applies to you, or write in the date required. <input checked="" type="checkbox"/>		AF BASE OR INSTALLATION		CASE CONTROL NUMBER (1-3) (For EDP use only)	
		ORGANIZATION		DATE	
LAST NAME - FIRST NAME - MIDDLE INITIAL		HOURS PER WEEK YOU NORMALLY SPEND WORKING IN YOUR DAFSC (7-8)			
AF SERVICE NUMBER PREFIX (9-10) NUMBER (11-17) SUFFIX (18)		TOTAL MONTHS IN UTILIZATION FIELD (19-21)		HOURS PER WEEK YOU NORMALLY SPEND WORKING IN OTHER AFSCs (22-23)	
PRIMARY AFSC PREFIX (24) NUMBER (25-28) SUFFIX (29)		TOTAL MONTHS IN DUTY AFSC (30-32)		HOURS PER WEEK YOU NORMALLY SPEND ON ADDITIONAL DUTIES & DETAILS (33-34)	
DUTY AFSC PREFIX (35) NUMBER (36-39) SUFFIX (40)		TOTAL FEDERAL SERVICE COMMISSION DATE MONTH: JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC 19__ YEAR (41-43)			
CHECK ONE BOX ONLY IN ALL TABLES EXCEPT IV; CHECK 2 BOXES IN TABLE IV.					
TABLE I GRADE (44) 2ND LIEUTENANT <input type="checkbox"/> 1 1ST LIEUTENANT <input type="checkbox"/> 2 CAPTAIN <input type="checkbox"/> 3 MAJOR <input type="checkbox"/> 4 LT COLONEL <input type="checkbox"/> 5 COLONEL <input type="checkbox"/> 6		TABLE III EDUCATION (45) NON-HIGH SCHOOL GRAD <input type="checkbox"/> 1 HIGH SCHOOL GRAD (or GED) <input type="checkbox"/> 2 HS GRAD+LESS THAN 2 YR COLL <input type="checkbox"/> 3 2 YR OR MORE COLL-NO DEGREE <input type="checkbox"/> 4 BACHELOR'S DEGREE <input type="checkbox"/> 5 MASTER'S DEGREE <input type="checkbox"/> 6 DOCTOR'S DEGREE <input type="checkbox"/> 7		TABLE V COMMAND (50-51) ADC <input type="checkbox"/> 01 AFLC <input type="checkbox"/> 02 AFCS <input type="checkbox"/> 03 AFSC <input type="checkbox"/> 04 ATC <input type="checkbox"/> 05 AU <input type="checkbox"/> 06 AAC <input type="checkbox"/> 07 C AIR C <input type="checkbox"/> 08 C on AC <input type="checkbox"/> 09 PACAF <input type="checkbox"/> 10 HQ COMD <input type="checkbox"/> 11 MATS <input type="checkbox"/> 12 ACIC <input type="checkbox"/> 13 SAC <input type="checkbox"/> 14 TAC <input type="checkbox"/> 15 USAFE <input type="checkbox"/> 16 USAFSS <input type="checkbox"/> 17 OAR <input type="checkbox"/> 18 USAFA <input type="checkbox"/> 19 ANG <input type="checkbox"/> 20 AF Res <input type="checkbox"/> 21 AFAFC <input type="checkbox"/> 22 OTHER <input type="checkbox"/> 23	
TABLE II ORIGINAL SOURCE OF COMMISSION (46-47) USMA <input type="checkbox"/> 01 USNA <input type="checkbox"/> 02 USAFA <input type="checkbox"/> 03 ROTC <input type="checkbox"/> 04 OTS <input type="checkbox"/> 05 OCS <input type="checkbox"/> 06 AV CAD <input type="checkbox"/> 07 ANG <input type="checkbox"/> 08 DIR (MIL) <input type="checkbox"/> 09 DIR (CIV) <input type="checkbox"/> 10 OTHER <input type="checkbox"/> 11		TABLE IV ORGANIZATIONAL LEVEL (Check One) ORGANIZATION IN WHICH POSITION LOCATED (48) ORGANIZATION COMMANDED DIRECTED OR MANAGED (49) HQ USAF <input type="checkbox"/> 1 <input type="checkbox"/> 1 MAJOR AIR COMD HQ <input type="checkbox"/> 2 <input type="checkbox"/> 2 NUMBERED AF HQ <input type="checkbox"/> 3 <input type="checkbox"/> 3 AIR DIV HQ (or equiv.) <input type="checkbox"/> 4 <input type="checkbox"/> 4 WING HQ (or equiv.) <input type="checkbox"/> 5 <input type="checkbox"/> 5 GROUP HQ (or equiv.) <input type="checkbox"/> 6 <input type="checkbox"/> 6 SQUADRON (or equiv.) <input type="checkbox"/> 7 <input type="checkbox"/> 7 UNIT LESS THAN SQ <input type="checkbox"/> 8 <input type="checkbox"/> 8 NONE <input type="checkbox"/> 9 <input type="checkbox"/> 9			
PRESENT POSITION TITLE (abbreviate)				TOTAL MONTHS IN PRESENT POSITION	
REMARKS					

Officer Job Inventory
BACKGROUND INFORMATION

STANDARD BACKGROUND INFORMATION PAGE FOR ALL AIRMAN JOB INVENTORIES

BACKGROUND INFORMATION				DATE		CASE CONTROL NUMBER			
PLEASE PRINT INFORMATION REQUESTED AND CHECK APPLICABLE BLANKS						1-4			
LAST NAME		FIRST NAME		MIDDLE INITIAL					
5-22									
GRADE <div style="display: flex; justify-content: space-around; font-size: small;"> <div>1 <input type="checkbox"/> AB</div> <div>2 <input type="checkbox"/> A3C</div> <div>3 <input type="checkbox"/> A2C</div> <div>4 <input type="checkbox"/> A1C</div> <div>5 <input type="checkbox"/> SSGT</div> <div>6 <input type="checkbox"/> TSGT</div> <div>7 <input type="checkbox"/> MSGT</div> <div>8 <input type="checkbox"/> SMSGT</div> <div>9 <input type="checkbox"/> CMSGT</div> </div>				23				MAJOR COMMAND <div style="font-size: small;"> AAC <input type="checkbox"/> A ACIC <input type="checkbox"/> G ADC <input type="checkbox"/> C AFAFC <input type="checkbox"/> E AFCS <input type="checkbox"/> Y AFLC <input type="checkbox"/> F AFSC <input type="checkbox"/> H ATC <input type="checkbox"/> J AU <input type="checkbox"/> K CONAC <input type="checkbox"/> M HQ COMD <input type="checkbox"/> P HQ USAF <input type="checkbox"/> N MAC <input type="checkbox"/> Q OAR <input type="checkbox"/> X PACAF <input type="checkbox"/> R SAC <input type="checkbox"/> S TAC <input type="checkbox"/> T USAFA <input type="checkbox"/> B USAFE <input type="checkbox"/> D USAFSO <input type="checkbox"/> L USAFSS <input type="checkbox"/> U </div>	
AIR FORCE SERVICE NUMBER <div style="display: flex; justify-content: space-around; font-size: small;"> <div><input type="text"/><input type="text"/> PREFIX 24-25</div> <div><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/> NUMBER 26-33</div> </div>		PRIMARY AFSC <div style="display: flex; justify-content: space-around; font-size: small;"> <div><input type="text"/> PREFIX 34</div> <div><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/> NUMBER 35-39</div> <div><input type="text"/> SUFFIX 40</div> </div>							
ORGANIZATION <small>(CARD 99: 5-69)</small>		DUTY AFSC <div style="display: flex; justify-content: space-around; font-size: small;"> <div><input type="text"/> PREFIX 41</div> <div><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/> NUMBER 42-46</div> <div><input type="text"/> SUFFIX 47</div> </div>							
BASE OR INSTALLATION <small>(CARD 99: 70-73)</small>		TOTAL MONTHS IN DUTY AFSC <div style="text-align: center; font-size: small;"> <input type="text"/><input type="text"/><input type="text"/> 48-50 </div>							
TOTAL MONTHS AT PRESENT BASE <div style="text-align: center; font-size: small;"> <input type="text"/><input type="text"/><input type="text"/> 51-53 </div>		TOTAL MONTHS IN PRESENT WORK ASSIGNMENT <div style="text-align: center; font-size: small;"> <input type="text"/><input type="text"/><input type="text"/> 54-56 </div>							
TOTAL MONTHS IN CAREER FIELD <div style="text-align: center; font-size: small;"> <input type="text"/><input type="text"/><input type="text"/> 57-59 </div>		TOTAL MONTHS ACTIVE FEDERAL MILITARY SERVICE <div style="text-align: center; font-size: small;"> <input type="text"/><input type="text"/><input type="text"/> 60-62 </div>							
NUMBER OF SUBORDINATES WHO REPORT TO YOU DIRECTLY <div style="display: flex; justify-content: space-around; font-size: small;"> <div><input type="text"/> NONE</div> <div><input type="text"/> 1-2</div> <div><input type="text"/> 3-4</div> <div><input type="text"/> 5-6</div> <div><input type="text"/> 7-8</div> </div> <div style="display: flex; justify-content: space-around; font-size: small; margin-top: 5px;"> <div><input type="text"/> 9-10</div> <div><input type="text"/> 11-12</div> <div><input type="text"/> 13-14</div> <div><input type="text"/> 15-16</div> <div><input type="text"/> OVER 16</div> </div>		63		IF YOU CROSS-TRAINED INTO YOUR PRESENT AFSC, WHAT WAS YOUR PREVIOUS AFSC? <div style="display: flex; justify-content: space-around; font-size: small;"> <div><input type="text"/> PREFIX 64</div> <div><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/> NUMBER 65-69</div> <div><input type="text"/> SUFFIX 70</div> </div>					
PRESENT WORK ASSIGNMENT (JOB TITLE) <small>(CARD 02: 5-73)</small>									
CHECK BELOW THE METHOD BY WHICH YOU WERE ASSIGNED TO YOUR PRESENT CAREER LADDER: <small>(CARD 03)</small>									
A DIRECTED DUTY ASSIGNMENT YES <input type="checkbox"/> 5 NO <input type="checkbox"/>				CONVERSION FROM OBSOLETE AFSC IN SAME CAREER FIELD YES <input type="checkbox"/> 9 NO <input type="checkbox"/>					
A BYPASS TEST YES <input type="checkbox"/> 6 NO <input type="checkbox"/>				RETRAINING FROM ANOTHER CAREER FIELD YES <input type="checkbox"/> 10 NO <input type="checkbox"/>					
CLASSIFICATION BOARD ACTION YES <input type="checkbox"/> 7 NO <input type="checkbox"/>				REENLISTMENT FROM ANOTHER BRANCH OF SERVICE YES <input type="checkbox"/> 11 NO <input type="checkbox"/>					
COMPLETION OF BASIC TECHNICAL COURSE YES <input type="checkbox"/> 8 NO <input type="checkbox"/>									

JET ENGINE MECHANIC 432X0

BACKGROUND INFORMATION (Continued)			
CHECK THE TYPE OF MAINTENANCE ORGANIZATION YOU WORK FOR:			(CARD 04: 21-23)
FIELD MAINTENANCE	<input type="checkbox"/>	(21)	
ORGANIZATIONAL MAINTENANCE	<input type="checkbox"/>	(22)	
DEPOT MAINTENANCE	<input type="checkbox"/>	(23)	
RATE THE TIME YOU SPEND USING EACH UNIT OF EQUIPMENT COMPARED WITH THE TIME YOU SPEND USING OTHER EQUIPMENT. USE THE RATING SCALE GIVEN BELOW. IF YOU SPEND VERY LITTLE TIME USING A UNIT OF EQUIPMENT COMPARED WITH OTHER EQUIPMENT WRITE 1 IN THE BOX AND SO ON UP TO A RATING OF 5 IF YOU SPEND VERY MUCH TIME USING A UNIT OF EQUIPMENT. LEAVE BOXES BLANK ON EQUIPMENT YOU DO NOT USE.			(CARD 04: 24-60)
<p>RATING SCALE</p> <p>1. VERY LITTLE TIME</p> <p>2. LITTLE TIME</p> <p>3. MEDIUM TIME</p> <p>4. MUCH TIME</p> <p>5. VERY MUCH TIME</p>			
EQUIPMENT	RATING	EQUIPMENT	RATING
ADAPTOR KIT	<input type="checkbox"/> (24)	MD-3 GENERATOR SET	<input type="checkbox"/> (41)
BALANCING MACHINE	<input type="checkbox"/> (25)	NF-2 LIGHT CART	<input type="checkbox"/> (42)
CONSTANT SPEED DRIVE	<input type="checkbox"/> (26)	NOZZLE POSITION TRANSMITTER	<input type="checkbox"/> (43)
DYNAMIC BALANCER	<input type="checkbox"/> (27)	OCAMA TEST CELL	<input type="checkbox"/> (44)
ELECTRIC CONSOLE	<input type="checkbox"/> (28)	OIL SYSTEM FLUSHING UNIT	<input type="checkbox"/> (45)
FORKLIFT	<input type="checkbox"/> (29)	REMOTE TRIM KIT	<input type="checkbox"/> (46)
FUEL MANIFOLD TESTING EQUIPMENT	<input type="checkbox"/> (30)	SAND BLASTING MACHINE	<input type="checkbox"/> (47)
GROUND HEATING EQUIPMENT	<input type="checkbox"/> (31)	SHADOWGRAPH	<input type="checkbox"/> (48)
HOIST	<input type="checkbox"/> (32)	SHAW ESTES TEST CELL	<input type="checkbox"/> (49)
HYDRAULIC LOAD BANK	<input type="checkbox"/> (33)	SPACE PORTABLE TEST CELL	<input type="checkbox"/> (50)
IGNITION UNITS	<input type="checkbox"/> (34)	SPACE SEMI-PORTABLE TEST CELL	<input type="checkbox"/> (51)
JETCAL ANALYZER	<input type="checkbox"/> (35)	SPECTROMETER	<input type="checkbox"/> (52)
M 246 WRECKER	<input type="checkbox"/> (36)	STARTER TEST UNIT	<input type="checkbox"/> (53)
MA-1A AIR COMPRESSOR	<input type="checkbox"/> (37)	STATIC BALANCER	<input type="checkbox"/> (54)
MA-3 AIR CONDITIONER	<input type="checkbox"/> (38)	T-5 AMPLIFIER	<input type="checkbox"/> (55)
MC-1 AIR COMPRESSOR	<input type="checkbox"/> (39)	TUG	<input type="checkbox"/> (56)
CRANE	<input type="checkbox"/> (40)	ULTRASONIC DEGREASER	<input type="checkbox"/> (57)
OTHER (SPECIFY): _____		<input type="checkbox"/> (59)	<input type="checkbox"/> (60)
CHECK AREA(S) IN WHICH YOU WORK OR SUPERVISE AT PRESENT:			(CARD 04: 61-70)
FLIGHT-LINE	<input type="checkbox"/> (61)	QUALITY CONTROL SECTION	<input type="checkbox"/> (64)
TEST STAND	<input type="checkbox"/> (62)	ENGINE REPAIR SHOP	<input type="checkbox"/> (65)
BALANCE SHOP	<input type="checkbox"/> (63)	TRAINING SECTION	<input type="checkbox"/> (66)
OTHER (SPECIFY): _____		BENCH STOCK SECTION	<input type="checkbox"/> (67)
		RECORDS SECTION	<input type="checkbox"/> (68)
		P.E. SECTION	<input type="checkbox"/> (69)
			<input type="checkbox"/> (70)

MEDICAL MATERIEL 915X0

BACKGROUND INFORMATION (Continued)			
PLEASE PRINT INFORMATION REQUESTED AND CHECK APPLICABLE BLANKS			
CHECK ANY OF THE FOLLOWING COURSES WHICH YOU HAVE ATTENDED:			
BASIC MEDICAL MATERIEL COURSE	<input type="checkbox"/>	SUPPLY EDPE COURSE	<input type="checkbox"/>
	12		17
ADVANCED MEDICAL MATERIEL COURSE	<input type="checkbox"/>	BASE LEVEL MANAGEMENT COURSE	<input type="checkbox"/>
	13		18
BASIC INVENTORY MANAGEMENT COURSE	<input type="checkbox"/>	OJT SUPERVISORS COURSE	<input type="checkbox"/>
	14		19
BASIC MATERIEL FACILITIES COURSE	<input type="checkbox"/>	ECI MEDICAL SUPPLY COURSE	<input type="checkbox"/>
	15		20
DISASTER TRAINING FIRST AID CONTROL COURSE	<input type="checkbox"/>	ECI ORGANIZATIONAL SUPPLY COURSE	<input type="checkbox"/>
	16		21
CHECK THE MAJOR WORK AREA(S) BELOW IN WHICH YOU SPEND MOST OF YOUR TIME AT PRESENT:			
DOCUMENT CONTROL	<input type="checkbox"/>	LOCAL PURCHASE	<input type="checkbox"/>
	22		24
INVENTORY CONTROL	<input type="checkbox"/>	MEMO	<input type="checkbox"/>
	23		25
		GENERAL SUPERVISORY	<input type="checkbox"/>
			26
		WAREHOUSE	<input type="checkbox"/>
			27
		LINEN CONTROL	<input type="checkbox"/>
			28
CHECK THE MAJOR WORK AREAS BELOW IN WHICH YOU HAVE HAD AT LEAST SIX MONTHS' EXPERIENCE:			
DOCUMENT CONTROL	<input type="checkbox"/>	LOCAL PURCHASE	<input type="checkbox"/>
	29		31
INVENTORY CONTROL	<input type="checkbox"/>	MEMO	<input type="checkbox"/>
	30		32
		GENERAL SUPERVISORY	<input type="checkbox"/>
			33
		WAREHOUSE	<input type="checkbox"/>
			34
		LINEN CONTROL	<input type="checkbox"/>
			35
HAVE YOU HAD TRAINING IN KEY PUNCHING? YES <input type="checkbox"/> 36 NO <input type="checkbox"/>			
IN THE FIRST COLUMN OF SQUARES BELOW, CHECK THE SKILLS AND KNOWLEDGES YOU HAVE WHICH ARE NECESSARY FOR ADEQUATE PERFORMANCE OF YOUR PRESENT JOB. IN THE SECOND COLUMN, CHECK THE SKILLS AND KNOWLEDGES YOU DO NOT HAVE BUT WHICH WOULD BE DESIRABLE TO HAVE IN YOUR PRESENT JOB.			
TYPING	<input type="checkbox"/>	<input type="checkbox"/>	INVENTORY MANAGEMENT
	37	45	<input type="checkbox"/>
KEY PUNCH	<input type="checkbox"/>	<input type="checkbox"/>	FINANCIAL ACCOUNTING
	38	46	<input type="checkbox"/>
COMPUTER PROGRAMMING	<input type="checkbox"/>	<input type="checkbox"/>	PERSONNEL MANAGEMENT
	39	47	<input type="checkbox"/>
BASIC PRINCIPLES OF SUPPLY	<input type="checkbox"/>	<input type="checkbox"/>	MEDICAL TERMINOLOGY
	40	48	<input type="checkbox"/>
			41
			42
			43
			44
			49
			50
			51
			52
ARE THE SKILLS AND KNOWLEDGES REQUIRED FOR WORKING IN MEDICAL SUPPLY THE SAME AS THOSE REQUIRED IN MEDICAL EQUIPMENT?			
YES <input type="checkbox"/> 53 SOMEWHAT SIMILAR <input type="checkbox"/> 54 NO <input type="checkbox"/> 55			
DOES YOUR ORGANIZATION OPERATE BY MANUAL OR MECHANIZED ITEM ACCOUNTING? (CHECK BOTH IF APPLICABLE.)			
MANUAL <input type="checkbox"/> 56 MECHANIZED <input type="checkbox"/> 57			
INDICATE IN THE BOXES BELOW THE NUMBER OF HOURS IN AN AVERAGE 40 HOUR WEEK YOU SPEND ON EACH OF THE FOLLOWING ACTIVITIES:			
DRIVING A DELIVERY AND PICK-UP VEHICLE	<input type="text"/>	TYPING CORRESPONDENCE	<input type="text"/>
	58-59		66-67
OPERATING A FORK LIFT	<input type="text"/>	TYPING FORMS	<input type="text"/>
	60-61		68-69
KEY PUNCHING	<input type="text"/>	LOCATING ITEMS IN STOCK	<input type="text"/>
	62-63		70-71
MAKING INVENTORY COUNTS OF ITEMS	<input type="text"/>	LABELING SHELVES AND MARKING ITEMS	<input type="text"/>
	64-65		72-73

ELECTRONIC COMPUTER REPAIR 305X3

BACKGROUND INFORMATION (Continued)															
CIRCLE THE HIGHEST EDUCATION LEVEL (OR GED EQUIVALENT) YOU HAVE COMPLETED: (CARD 03: 12-13)															
ELEMENTARY 05 06 07 08				HIGH SCHOOL 09 10 11 12				COLLEGE 13 14 15 16				GRADUATE 17 18			
YOUR RESPONSES TO THE FOLLOWING THREE ITEMS WILL BE HELD IN STRICT CONFIDENCE AND WILL BE USED FOR RESEARCH PURPOSES ONLY. (CARD 03: 14-16)															
(14)				(15)				(16)							
I PLAN TO REENLIST:				I FIND MY JOB:				MY JOB UTILIZES MY TALENTS AND TRAINING:							
YES <input type="checkbox"/> 1				EXTREMELY INTERESTING <input type="checkbox"/> 1				PERFECTLY <input type="checkbox"/> 1							
UNCERTAIN, PROBABLY YES <input type="checkbox"/> 2				VERY INTERESTING <input type="checkbox"/> 2				EXCELLENTLY <input type="checkbox"/> 2							
UNCERTAIN, PROBABLY NO <input type="checkbox"/> 3				FAIRLY INTERESTING <input type="checkbox"/> 3				VERY WELL <input type="checkbox"/> 3							
NO, I PLAN TO SEPARATE WITHOUT RETIREMENT BENEFITS <input type="checkbox"/> 4				SO-SO <input type="checkbox"/> 4				QUITE WELL <input type="checkbox"/> 4							
NO, I PLAN TO RETIRE <input type="checkbox"/> 5				FAIRLY DULL <input type="checkbox"/> 5				FAIRLY WELL <input type="checkbox"/> 5							
				VERY DULL <input type="checkbox"/> 6				VERY LITTLE <input type="checkbox"/> 6							
				EXTREMELY DULL <input type="checkbox"/> 7				NOT AT ALL <input type="checkbox"/> 7							
MY JOB IS LOCATED AT AN INSTALLATION WHICH IS: (CARD 03: 17-18)															
INSIDE THE CONTINENTAL U.S. (ZONE OF THE INTERIOR)												<input type="checkbox"/> (17)			
OUTSIDE THE CONTINENTAL U.S. (INCLUDING ALASKA AND HAWAII)												<input type="checkbox"/> (18)			
CHECK THE TYPE(S) OF COMPUTER ON WHICH YOU PRESENTLY WORK: (CARD 03: 19-21)															
(19) <input type="checkbox"/> SPECIAL PURPOSE				(20) <input type="checkbox"/> SCIENTIFIC				(21) <input type="checkbox"/> GENERAL PURPOSE							
ESTIMATE THE PERCENTAGE OF TOTAL WORK TIME YOU SPEND ON THE FOLLOWING TYPES OF EQUIPMENT: (CARD 03: 22-30)															
(22-24) <input type="checkbox"/> DISPLAY EQUIPMENT				(25-27) <input type="checkbox"/> INPUT/OUTPUT EQUIPMENT				(28-30) <input type="checkbox"/> CENTRAL COMPUTER EQUIPMENT							
HOW MANY TIMES HAVE YOU BEEN REQUIRED TO RETRAIN ON A DIFFERENT COMPUTER DURING YOUR CAREER AS A ELECTRONIC COMPUTER REPAIRMAN (AFSC 305X3)? (CARD 03: 31-32)															
CHECK THE COMMAND OR CONTROL SYSTEM TO WHICH YOU ARE ASSIGNED: (CARD 03: 33-46)															
(33) <input type="checkbox"/> 407L TACTICAL AIR CONTROL SYSTEM (34) <input type="checkbox"/> 412L AIR WEAPONS CONTROL SYSTEM (35) <input type="checkbox"/> 416L SEMI-AUTOMATIC GROUND ENVIRONMENT (SAGE) SYSTEM (36) <input type="checkbox"/> 416M BACKUP INTERCEPTOR CONTROL SYSTEM (BUIC) (37) <input type="checkbox"/> 425L NORAD COMBAT OPERATIONS CENTER (38) <input type="checkbox"/> 433L WEATHER OBSERVING AND FORECASTING SYSTEM (39) <input type="checkbox"/> 466L ELECTROMAGNETIC INTELLIGENCE SYSTEM (40) <input type="checkbox"/> 474L BALLISTIC MISSILE EARLY WARNING SYSTEM (BMEWS) (41) <input type="checkbox"/> 477L NUCLEAR DETONATION DETECTION AND REPORTING SYSTEM (NUDETS) (42) <input type="checkbox"/> 496L SPACETRACK SYSTEM (43) <input type="checkbox"/> STRATEGIC AIR COMMAND COMMUNICATIONS AND CONTROL SYSTEM (SACCS) (44) <input type="checkbox"/> AUTOMATIC DIGITAL NETWORK (AUTODIN) (45) <input type="checkbox"/> SPACE GUIDANCE AND TRACKING SYSTEM (46) <input type="checkbox"/> OTHER (SPECIFY): _____															

Attachment 1

WEAPON CONTROL SYSTEMS 322X1

JOB INVENTORY (Duty-Task List)		AFSC 322X1/32290	Page 1 of 39 Pages	
LISTED BELOW ARE A DUTY AND THE TASKS WHICH IT INCLUDES. CHECK ALL TASKS WHICH YOU PERFORM. ADD ANY TASKS YOU DO WHICH ARE NOT LISTED, THEN RATE THE TASKS YOU HAVE CHECKED.		CHECK	TIME SPENT	TRAINING
A. ORGANIZING AND PLANNING		✓ IF DONE	1. VERY MUCH BELOW AVERAGE 2. BELOW AVERAGE 3. SLIGHTLY BELOW AVERAGE 4. ABOUT AVERAGE 5. SLIGHTLY ABOVE AVERAGE 6. ABOVE AVERAGE 7. VERY MUCH ABOVE AVERAGE	1. ALL FROM SCHOOL TRAINING 2. ALMOST ALL FROM SCHOOL TRAINING 3. MOSTLY FROM SCHOOL TRAINING 4. ABOUT FIFTY-FIFTY SCHOOL TRAINING AND WORK EXPERIENCE 5. MOSTLY FROM WORK EXPERIENCE 6. ALMOST ALL FROM WORK EXPERIENCE 7. ALL FROM WORK EXPERIENCE
1.	Assign jobs, priorities, and completion times to maintenance work centers			5
2.	Assign time compliance technical orders			6
3.	Coordinate fire control system maintenance with other sections			7
4.	Coordinate flight line maintenance activities with aircraft mechanics			8
5.	Coordinate procurement or location of spare parts and bench stocks			9
6.	Coordinate production schedules within the sections			10
7.	Coordinate transportation requirements of equipment or material			11
8.	Coordinate weapons control system maintenance with other base activities			12
9.	Determine requirements for shop equipment, space, tools, or supplies			13
10.	Develop organizational and functional charts			14
11.	Establish or revise local Maintenance Operating Instructions, policies, or procedures			15
12.	Establish program to prevent foreign object damage (FOD) to aircraft or electronic equipment			16
13.	Plan equipment modifications or replacements			17
14.	Plan fire or weapons control maintenance of special missions, war plans, or training exercises			18
15.	Program unscheduled maintenance of equipment or aircraft systems			19
16.	Schedule maintenance work load and duty assignments			20

AEROSPACE GROUND EQUIPMENT REPAIR 421X3

JOB INVENTORY (Duty-Task List)		AFSC 421X3	Page 6 of 22 Pages	
LISTED BELOW ARE A DUTY AND THE TASKS WHICH IT INCLUDES. CHECK ALL TASKS WHICH YOU PERFORM. ADD ANY TASKS YOU DO WHICH ARE NOT LISTED, THEN RATE THE TASKS YOU HAVE CHECKED.		CHECK	TIME SPENT	TRAINING
		<div>✓</div> <div>IF DONE</div>	<div>1. VERY MUCH BELOW AVERAGE</div> <div>2. BELOW AVERAGE</div> <div>3. SLIGHTLY BELOW AVERAGE</div> <div>4. ABOUT AVERAGE</div> <div>5. SLIGHTLY ABOVE AVERAGE</div> <div>6. ABOVE AVERAGE</div> <div>7. VERY MUCH ABOVE AVERAGE</div>	<div>1. ALL FROM SCHOOL TRAINING</div> <div>2. ALMOST ALL FROM SCHOOL TRAINING</div> <div>3. MOSTLY FROM SCHOOL TRAINING</div> <div>4. ABOUT FIFTY-FIFTY SCHOOL TRAINING AND WORK EXPERIENCE</div> <div>5. MOSTLY FROM WORK EXPERIENCE</div> <div>6. ALMOST ALL FROM WORK EXPERIENCE</div> <div>7. ALL FROM WORK EXPERIENCE</div>
D. TRAINING				5
1. Administer written, oral, or performance tests				7
2. Arrange for training aids, space, and equipment				8
3. Conduct formal classroom instruction				9
4. Conduct training conferences or briefings				10
5. Conduct on-the-job training				11
6. Develop or revise on-the-job training materials				12
7. Develop phase or pre-Specialty Knowledge Tests				13
8. Give technical advice				14
9. Indoctrinate newly assigned personnel				15
10. Maintain and review on-the-job training records (AF Form 523)				16
11. Prepare lesson plans				17
12. Review training status of the section				18
13. Select individuals for specialized training courses				19
14. Plan and schedule on-the-job training				20
15. Select and assign instructors				


ACCOUNTING AND FINANCE 671X0/1/3

JOB INVENTORY (Duty-Task List)		AFSC 671XX/67290	Page 6 of 32 Pages	
LISTED BELOW ARE A DUTY AND THE TASKS WHICH IT INCLUDES. CHECK ALL TASKS WHICH YOU PERFORM. ADD ANY TASKS YOU DO WHICH ARE NOT LISTED, THEN RATE THE TASKS YOU HAVE CHECKED.		CHECK	TIME SPENT	TRAINING
E. PROCESSING MILITARY PAY		✓ IF DONE	1. VERY MUCH BELOW AVERAGE 2. BELOW AVERAGE 3. SLIGHTLY BELOW AVERAGE 4. ABOUT AVERAGE 5. SLIGHTLY ABOVE AVERAGE 6. ABOVE AVERAGE 7. VERY MUCH ABOVE AVERAGE	1. ALL FROM SCHOOL TRAINING 2. ALMOST ALL FROM SCHOOL TRAINING 3. MOSTLY FROM SCHOOL TRAINING 4. ABOUT FIFTY-FIFTY SCHOOL TRAINING AND WORK EXPERIENCE 5. MOSTLY FROM WORK EXPERIENCE 6. ALMOST ALL FROM WORK EXPERIENCE 7. ALL FROM WORK EXPERIENCE
1.	Align Military Pay Records (MPRs) for pay computation			6
2.	Answer inquiries concerning military pay or allowances			7
3.	Assemble MPRs into batches			8
4.	Assign control or document numbers to military pay orders or documents			9
5.	Audit change document against MPOs or MPRs			10
6.	Audit coded changes or manual entries on MPRs			11
7.	Close or open MPRs manually			12
8.	Code changes to MPRs			13
9.	Collect military pay data for the Report of Accounting and Finance Activities			14
10.	Compute changes to MPRs			15
11.	Control and post cash collections for soldiers' deposits			16
12.	Control blank MPRs			17
13.	Coordinate processing of military pay documents with other accounting and finance sections			18
14.	Deliver military pay PCAM cards to key punch			19
15.	Distribute military pay orders or documents			20
16.	Gather military pay documents or papers for audit			21
17.	Key punch military pay PCAM cards			22
18.	Maintain files of military pay documents or locator cards			23
19.	Maintain files of military pay PCAM cards			24
(continued next page)				

MANPOWER AND MANAGEMENT ENGINEERING CAREER LADDERS 733X0/1

JOB INVENTORY (Duty-Task List)		AFSC 733X0/733X1	Page 16 of 23 Pages	
<p>LISTED BELOW ARE A DUTY AND THE TASKS WHICH IT INCLUDES. CHECK ALL TASKS WHICH YOU PERFORM. ADD ANY TASKS YOU DO WHICH ARE NOT LISTED, THEN RATE THE TASKS YOU HAVE CHECKED.</p>		CHECK	TIME SPENT	TRAINING
<p>M. PERFORMING TIME STUDIES</p>		<p>✓</p> <p>IF DONE</p>	<p>1. VERY MUCH BELOW AVERAGE</p> <p>2. BELOW AVERAGE</p> <p>3. SLIGHTLY BELOW AVERAGE</p> <p>4. ABOUT AVERAGE</p> <p>5. SLIGHTLY ABOVE AVERAGE</p> <p>6. ABOVE AVERAGE</p> <p>7. VERY MUCH ABOVE AVERAGE</p>	<p>1. ALL FROM SCHOOL TRAINING</p> <p>2. ALMOST ALL FROM SCHOOL TRAINING</p> <p>3. MOSTLY FROM SCHOOL TRAINING</p> <p>4. ABOUT FIFTY-FIFTY SCHOOL TRAINING AND WORK EXPERIENCE</p> <p>5. MOSTLY FROM WORK EXPERIENCE</p> <p>6. ALMOST ALL FROM WORK EXPERIENCE</p> <p>7. ALL FROM WORK EXPERIENCE</p>
1. Compute standard allotted times from time study				69
2. Compute time study factors (F)				70
3. Determine allowances for work center personnel for time study				71
4. Determine elements causing variation in the standard practice				72
5. Determine leveling factor for time studies				08:73
6. Determine required number of time readings for an operation				5
7. Develop a basis for predetermined time standards				6
8. Establish workload data collection system for time study				7
9. Examine operations for changes prior to timing				8
10. Explain time study procedures to work center personnel				9
11. Prepare Time Study Record (AF Form 1112)				10
12. Rate performance of workers during time studies				11
13. Record workload volume				12
14. Select average workers to be time studied				13
15. Time operations using continuous technique				14
16. Time operations using snapback technique				15
17. Write standard practices				16

OUTSIDE WIRE AND ANTENNA SYSTEMS INSTALLATION AND MAINTENANCE 361X0

JOB INVENTORY (Duty-Task List)		AFSC 361X0	Page 11 of 25 Pages		
LISTED BELOW ARE A DUTY AND THE TASKS WHICH IT INCLUDES. CHECK ALL TASKS WHICH YOU PERFORM. ADD ANY TASKS YOU DO WHICH ARE NOT LISTED, THEN RATE THE TASKS YOU HAVE CHECKED.		CHECK	TIME SPENT	IMPORTANCE	
H. INSTALLING AND REMOVING AERIAL CABLE SYSTEMS		<div style="text-align: center;">  IF DONE </div>	1. VERY MUCH BELOW AVERAGE 2. BELOW AVERAGE 3. SLIGHTLY BELOW AVERAGE 4. ABOUT AVERAGE 5. SLIGHTLY ABOVE AVERAGE 6. ABOVE AVERAGE 7. VERY MUCH ABOVE AVERAGE	1. EXTREMELY UNIMPORTANT 2. VERY UNIMPORTANT 3. UNIMPORTANT 4. ABOUT MEDIUM IMPORTANCE 5. IMPORTANT 6. VERY IMPORTANT 7. EXTREMELY IMPORTANT	
1. Attach suspension strand to pole					
2. Change and splice lasher wire					
3. Deliver materials to lineman with snatch block and handline					
4. Drill through-bolt holes and secure suspension clamps on poles					
5. Install cable pressurization systems					
6. Install distribution terminals					
7. Install pulling-in line through cable rings					
8. Load and unload cable reels					
9. Load lashing machine with lashing wire					
10. Make measurements for proper road and power line clearance for aerial cable					
11. Mount cable terminals					
12. Operate truck to pull cable through rings					
13. Operate truck to string suspension strand					
14. Operate winch to pull up suspension strand					
15. Operate winch to load or unload cable reels					
16. Place rings on suspension strand					
17. Position aerial cable guides					
18. Position cable rollers or mats					
19. Prepare aerial cable overlap for splicing					
(continued next page)					

DEPARTMENT OF THE AIR FORCE
6570TH PERSONNEL RESEARCH LABORATORY (AFSC)
LACKLAND AIR FORCE BASE, TEXAS 78236



REPLY TO
ATTN OF

PRBP/Dr. Morsh/36133

7 Sep 1967

SUBJECT

Letter of Appreciation

TO:

1. This Laboratory is most appreciative of your willing and prompt response to a request for technical advisers required for making a revision of a job inventory in the Medical Materiel Career Field. We were much impressed with the calibre of the technical adviser you made available to us. TSgt James R. Burton not only showed himself to be extremely knowledgeable in the Medical Materiel field, but readily understood what was required in the way of item selection and organization for job inventory construction.

2. It was indeed gratifying to know that when the Laboratory is called upon to implement a request from Headquarters USAF such fine cooperation from units of the Air Force Systems Command can be expected.

FOR THE COMMANDER

F. L. McLANATHAN, Lt Colonel, USAF
Executive Officer

Attachment 2

JOB INVENTORY (Duty-Task List)		AFSC 461X0/2X0	Page of Pages
LISTED BELOW ARE A DUTY AND THE TASKS WHICH IT INCLUDES. ADD TASKS DONE IN YOUR CAREER LADDER WHICH ARE NOT LISTED. CHANGE OR REWORD TASK STATEMENTS WHICH ARE NOT PROPERLY WORDED.			
DUTY			
F. INSPECTING WEAPONS AND WEAPON SYSTEMS			
TASKS INCLUDED IN ABOVE DUTY			
1. Adapt test equipment to firing circuits		(Is this stated correctly?)	
2. Inspect air munition ejector racks and doors			
3. Inspect ammunition belts for flexibility and alignment of cartridges			
4. Inspect ammunition boosters			
5. Inspect armament bay doors			
6. Inspect bomb bay doors			
7. Inspect circuit breakers and switches on aircraft			
8. Inspect clip-in assemblies			
9. Inspect electrical firing circuits			
10. Inspect explosive packing containers			
11. Inspect explosive squibs or cartridges			
12. Inspect feed chutes			
13. Inspect fixed rocket adapters			
14. Inspect .50 caliber M3 machine guns			
15. Inspect ground AGM launch gear			
16. Inspect guidance and control units			
17. Inspect launching rails and racks			
18. Inspect loading and suspension devices			
19. Inspect missile bay doors		(Is this covered by No. 5 above?)	
20. Inspect munition cans			
CONTINUED ON NEXT PAGE			

INSTRUCTIONS
for
TECHNICAL ADVISERS

1. You have been selected to serve as a technical adviser to assist in developing a job inventory for your career ladder.
2. Please perform your technical review as follows:
 - a. Fill in the Job Inventory Background Information Sheets
 - b. Before making any corrections or additions, carefully read through all of the duties and tasks listed in the inventory.
 - c. Add duties and tasks which you know are done by airmen in your career ladder but which are not listed.
 - d. Change or reword any task statement which is not properly worded.
 - e. Use the last page to write any comments or recommendations for improving the inventory.
3. You are being consulted as one qualified in your field. Please follow these instructions carefully. Your contribution is important to the United States Air Force.

Attachment 4

DEPARTMENT OF THE AIR FORCE
6570TH PERSONNEL RESEARCH LABORATORY (AFSC)
LACKLAND AIR FORCE BASE, TEXAS 78236



REPLY TO
ATTN OF: PRBP/Mr Archer/36133

2 Oct 1967

SUBJECT: Technical Review of Job Inventory, AFSC 305X3

TO:

1. Under Headquarters USAF directed Project 7734, this Laboratory conducts occupational analysis research. One important part of this effort is the development of improved methods for obtaining occupational information by use of job inventories.
2. In accordance with paragraph 2, Attachment 1, AF Manual 35-2, which has been excerpted and attached for your convenience, four Electronic Computer Repairman Career Ladder Job Inventories are being forwarded for review by technical advisers at your base. One inventory should be reviewed by an adviser holding AFSC 30533, one by a 30553, one by a 30593.
3. Authority for direct communication between this Laboratory and test control officers is in Hq USAF (AFPDPCS) letter, 29 Jan 1965, Data Collection for Occupational Analysis Research; one copy of letter is attached. The control number assigned to this survey is AFPT 80-086(R).
4. Suspense date for review of the attached inventories is 10 working days after receipt in your office. Please use the inclosed envelope to return reviewed inventories to 6570th Personnel Research Laboratory (PRBP), Lackland AFB, Texas 78236.

FOR THE COMMANDER

F. L. McCLANATHAN, Lt Col, USAF
Executive Officer

4 Atchs

1. Hq USAF (AFPDPCS) ltr, 29 Jan 65
2. Excerpt from AFM 35-2
3. Job Inventories
4. Return Envelope

Attachment 5

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, D.C.



29 January 1965

REF ID: A6PDICS

SUBJECT Data Collection for Occupational Analysis Research

TO	AAC	AFAPC	AFSC	CONAC	OAR	TAC	USAFSO
	ACIC	AFCS	ATC	HQCOMD USAF	MACAF	USAPA	USAFSS
	ADC	AFLC	AU	MATS	SAC	USAFB	

1. This letter supersedes letter, AFPDP-4, to all major commands, subject as above, dated 19 February 1962.


2. Headquarters 6570th Personnel Research Laboratory, Air Force Systems Command, is engaged in research supporting the Air Force Personnel System. This research, conducted under Project 7734, Development of Methods for Describing, Evaluating, and Structuring Air Force Occupations, has resulted in the development of new techniques of job analysis that have been incorporated in a revision of AFM 35-2, Occupational Analysis, dated 10 January 1963. The continuation of the research effort in this area requires the conducting of surveys of Air Force personnel in specific AFSCs, commands, and bases.

3. Administrative procedures without special authorization are burdensome because of the time lag and correspondence load associated with securing authority for Personnel Research Laboratory to contact bases on an individual and specific basis.

4. Accordingly, the Personnel Research Laboratory is authorized direct communication with bases, or tenant organizations on bases, possessing officers and airmen to be surveyed. The Personnel Research Laboratory will provide the Director of Personnel of the appropriate command with survey schedules sent to the local commanders or Test Control Officers. Personnel Research Laboratory understands that these schedules are not to interfere with priority command operations. Adjustments to schedules necessitated by operational commitments may be made by local commanders, who will inform Personnel Research Laboratory of such changes.

5. Command cooperation is solicited.

FOR THE CHIEF OF STAFF


SIDNEY P. EASLEY
Colonel, USAF
Chief, Career Development Division
Directorate of Personnel Planning

Attachment 6

MAJOR AIR COMMAND L00 F AIR FORCE LOGISTICS COMMAND (OVERSEAS)

GEOGRAPHICAL AREA 2 OVERSEAS

CBPO DUTY LOCATION DUTY AFSC

	3	5	7	9	TOTAL
	DAFSC	DAFSC	DAFSC	DAFSC	
	64530	64550	64570	64590	

AXAQDS	0	5	1	0	6
CBCXNA	0	6	4	0	10
CPDVLK	0	7	2	0	9
ELFXSB	4	7	0	0	11
HKKNMD	0	1	0	0	1
HKVHMG	0	1	0	0	1
HKYVEW	2	17	3	0	22
KZMLER	0	1	6	0	7
RFTYFR	2	5	4	0	11
TBAVLK	0	0	1	0	1
TBLXEZ	0	0	1	0	1
TBUQXH	0	0	3	0	3
TBWPRC	0	9	4	0	13
TBWQPC	0	1	0	0	1
TBWQRJ	0	0	1	0	1
TBXMTG	0	0	1	0	1
WUDLMU	0	1	2	0	3
WUHHHA	0	0	1	0	1
WUNHKK	0	0	1	0	1
WUNHHE	0	0	0	1	1
WUNYAE	0	0	1	0	1
WUVJBU	0	0	2	0	2
WUWTEX	0	0	1	0	1
WUYXUR	1	8	7	0	16
TOTAL	9	69	46	1	125

DEPARTMENT OF THE AIR FORCE
6570TH PERSONNEL RESEARCH LABORATORY (AFSC)
LACKLAND AIR FORCE BASE, TEXAS 78236



REPLY TO
ATTN OF: PRBP/Mr Archer/2209

8 Aug 1967

SUBJECT: Occupational Survey in the Electronic Computer Repairman
Career Ladder, AFSC 305X3

TO: Hq SAC ()
Offutt AFB, NB

1. This Laboratory is conducting an occupational survey of airmen in the Electronic Computer Repairman Career Ladder, Duty AFSC 30533, 30553, 30573, and 30593. The number AFPT 80-086 has been assigned to this survey.

2. Direct communication between this Laboratory and test control officers is authorized under provisions of Hq USAF (AFPDPCS) letter, 29 Jan 1965, Data Collection for Occupational Analysis Research (Atch 1). Also attached is a copy of the letter to test control officers (Atch 2) and the number of individuals the test control officers are to survey at each base or installation in your command (Atch 3).

FOR THE COMMANDER

F. L. McLANATHAN, Lt Col, USAF
Executive Officer

3 Atchs

1. Hq USAF (AFPDPCS) ltr, 29 Jan 65
2. Ltr, Test Control Officers
3. List of Airmen to be Surveyed

Attachment 8

16 861

26 TAC RECON GROUP
ATTN CBPO

APO NY 09012

LIST OF AIRMEN TO BE SURVEYED

All airmen in the Helicopter Mechanic Career Ladder, AFSC 431X0, at installation (s) under your jurisdiction are to be surveyed. The numbers given below represent the total assigned according to our latest information. If additional booklets are needed, please send an air mail request for them.

<u>COMMAND</u>	<u>INSTALLATION</u>		<u>AFSC</u>			
	<u>CODE</u>	<u>NAME</u>	<u>43130</u>	<u>43150</u>	<u>43170</u>	<u>43190*</u>
MAC	TYFR	Ramstein AB	0	8	3	2
USAFE	TYFR	Ramstein AB	1	1	0	2

* NOTE: Only 43190s who supervise Helicopter Mechanics possessing AFSCs 43130, 43150, and/or 43170 should be surveyed.

DEPARTMENT OF THE AIR FORCE
6570TH PERSONNEL RESEARCH LABORATORY (AFSC)
LACKLAND AIR FORCE BASE, TEXAS 78236



REPLY TO
ATTN OF: PRBP/Dr Morsh/36133

SUBJECT: Administration of Job Inventory

TO:

1. Under Headquarters USAF directed Project 7734, the Personnel Research Laboratory has been charged with the responsibility of conducting occupational research. A part of this effort involves job inventory surveys of incumbents in selected career areas, as described in AFM 35-2. In accordance with Hq USAF (AFPDPCS) ltr, 29 Jan 65, Data Collection for Occupational Research (Atch 1), the Laboratory is authorized direct communication with individual bases in conducting occupational research.
2. The sample selected for use in the present survey includes incumbents assigned to organizations at the installations served by your Consolidated Base Personnel Office. The number of incumbents to be surveyed in each selected AFSC is listed, by installation and command, in Attachment 2.
3. Sufficient job inventory booklets (Atch 3) are inclosed for the incumbents required. Two copies of the Administrative Directions (Atch 4) are also inclosed for group administration of the inventory to incumbents with local duty station. It is preferred, if at all possible, that the administration of the job inventories be supervised by a test control officer, and that the incumbents be assembled in groups of convenient size in a normal test room situation. Inventories may be sent airmen at remote duty stations for self-administration and returned to your office for forwarding to this laboratory. Instructions for self-administration are provided on the first page of each inventory booklet.
4. The suspense data for completion of the job inventories is 10 working days after receipt by your office. If this suspense date cannot be met for some incumbents because of leave, TDY, or priority operations, please return the completed inventories within 10 days and indicate in your cover letter when the remaining inventories will be completed and forwarded. Since data analysis cannot begin until all inventories are returned, your compliance with this request is essential to the success of the survey.

FOR THE COMMANDER

F. L. McCLANATHAN, Lt Col, USAF
Executive Officer

4 Atchs

1. Hq USAF (AFPDPCS) ltr, 29 Jan 65
2. List of Incumbents to be Surveyed
3. Job Inventory Booklets (cys)
4. Admin Directions (2 cys)

UNITED STATES AIR FORCE JOB INVENTORY

ADMINISTRATIVE DIRECTIONS

PREVENTIVE MEDICINE CAREER LADDER

AFSCs 90730, 90750, 90770, 90790

**OCCUPATIONAL ANALYSIS METHODS
PROJECT 7734, TASK 773401
CONTRACT NO. AF 41(609)-3049**

**6570TH PERSONNEL RESEARCH LABORATORY (AMD)
AIR FORCE SYSTEMS COMMAND
LACKLAND AFB, TEXAS 78236**

Attachment 11

DIRECTIONS FOR GROUP
ADMINISTRATION OF THE JOB INVENTORY

The administrator and his proctors should study these directions carefully so that they thoroughly understand what is required of them and of the airmen who are to complete the job inventory. If possible, all personnel scheduled to take part in the survey should be assembled at the same time to avoid a makeup administration. The inventory booklets and pencils with good erasers should be distributed before the men arrive.

To qualify for this survey, an airman must hold one of the Duty AFSCs listed on the front cover of the booklet. He must have held his current Duty AFSC for at least six weeks and he must have been working in the same duty or job assignment for the past six weeks.

The administrator and proctors should circulate about the room to answer questions and to see that the proper procedures are being followed. Close proctoring is required to see that each man understands what is required and is proceeding according to instructions.

As each man finishes his inventory, the administrator, or a proctor, should go over his booklet to be sure it has been properly completed. Then the incumbent should be thanked for his time and cooperation, and dismissed.

Attachment 11

AFM 35-2

After everyone is seated the survey administrator will read the following instructions aloud:

Gentlemen, you are here today to take part in an official Air Force job survey. The Air Force needs accurate information about the work done in your specialty. The job inventory is the means by which you supply this information. The inventory consists of some Background Information pages and a list of work activities called tasks which are grouped into large divisions of work called duties. The job inventory is not a test, and the results will not be used to evaluate you, your supervisor, or your unit.

In filling out the inventory you are responsible for giving correct information about the work you do. The information you give is highly useful to the Air Force. It will help provide better specialty descriptions; it will be used to improve training courses and job training standards; it may lead to more effective classification and specialty knowledge tests.

Now I will tell you how to complete the inventory. First, you fill in the Background Information pages. Then you will turn to DUTY A on page 1 of your booklet and read all of the tasks under every duty. As you read you will place a check mark in the check column beside each task you do.

Attachment 11

In the blank spaces at the end of each duty you will write in any tasks you do in that duty that are not listed. If some tasks you perform do not belong under any duty you will write them on the blank page at the end of the booklet.

You will then turn back to DUTY A on page 1 again. You will make TIME SPENT ratings of all the tasks you have checked. Time Spent means the total time you spend doing the task you are rating compared with the time you spend on each of the other tasks you do in your job. The 7-point TIME SPENT scale you will use is at the top of the Time Spent column. You will rate 1 each task on which you spend very much less time than you spend on the other tasks; you will rate a task 2 if you spend much less time; and so on up to a rating of 7 for each task on which you spend very much more time than you spend on other tasks.

When you have finished the TIME SPENT ratings you will turn back to DUTY A on page 1 again. You will make ratings exactly as before by using the (The survey administrator will specify the scale) scale at the top of the third column.

Are there any questions?

Begin now to fill in the BACKGROUND INFORMATION pages and then go ahead and check tasks you do and make your task ratings.

Attachment 11

INSTRUCTIONS FOR SELF-ADMINISTRATION OF THE JOB INVENTORY

This job inventory is a means for determining duties and tasks done by incumbents in the Air Force specialties listed on the front cover. It is not a test, and the results will not be used to evaluate you, your commander, or your unit. The job information provided by you, however, will help provide better descriptions of specialties. It may also lead to improvements in training courses, assignment procedures, qualifications estimates, and other personnel actions.

You are being surveyed as a representative of your specialty and grade level. Your contribution is important both to yourself and to the Air Force. Follow the instructions carefully in giving complete and accurate information about tasks you do.

In completing the inventory, you are to respond in terms of your present regular job. Disregard any task that is not part of your regular assignment, no matter how often you did it in the past. Additional tasks you take over for a few days while someone is away are not reported. In recalling tasks, go back far enough in time to get a true picture of your job. If your work changes from one season to another, you may have to go back a full year. If there was a permanent change in your duty assignment during the past year, go back to the time just after this change. You probably will need to go back not less than three months nor more than a year.

Accomplish the following steps in order:

1. Fill in the *Job Inventory Background Information*.

2. Beginning with Duty A, read each task statement under every duty in the inventory. As you read, place a check mark in the *check* column beside each task you do.

3. In the blank spaces below the tasks in each duty, add all tasks you do that are not listed. If some tasks do not fit under any duty, write them in on the blank page at the end of the booklet. Be very thorough about adding tasks. This is an essential step in completing the inventory.

4. Turn back to Duty A again. You are now to make a *Time-Spent* rating for each task you have checked or added. The 5-point rating scale you are to use is at the top of each page. *Time Spent* means the total time you spend on each task you are rating, *compared with the time you spend on each of the other tasks you do*. Remember that you are comparing only your own tasks with each other. Be sure to rate every task you checked or wrote in.

(When additional factors are to be rated, directions for making the ratings will be inserted here.)

When you have completed your ratings, please check your work and return your booklet to the Test Control Officer.

DEPARTMENT OF THE AIR FORCE
6570TH PERSONNEL RESEARCH LABORATORY (AFSC)
LACKLAND AIR FORCE BASE, TEXAS 78236



REPLY TO
ATTN OF: PRBP/Dr Morsh/36133

9 Sep 1967

SUBJECT: Inquiry Concerning Status of Officer Job Survey

TO:

1. Reference Hq 6570th Personnel Research Laboratory (PRBP) letter, 17 Aug 67, Administration of Officer Job Inventory, with two attachments (including inventory booklets), sent 19 Aug 67, by Certified Mail Number _____, requesting survey of AFSCs 6416 and 6424, with a suspense date of 10 working days after receipt by your office.
2. As of this date, no reply to the letter referenced in paragraph 1 has been received.
3. Request information as soon as possible on the status of the survey.

FOR THE COMMANDER

F. L. McLANATHAN, Lt Col, USAF
Executive Officer

Attachment 13

ELECTRICAL ACCOUNTING MACHINE CARD COLUMN LAYOUT			
SUBJECT <u>GND RADIO COMM EQUIP REPAIR</u> AFSCs <u>30434, 30454, 30474, 30490</u>		DESK NUMBER <u>HISTORY CARD 1</u> PROJECT OR SOURCE OF DATA <u>HRB-SINGER, INC. CONTRACT AF 41(100)-2379</u>	
PROJECT OR SOURCE OF DATA <u>HRB-SINGER, INC. CONTRACT AF 41(100)-2379</u>		LAYOUT DATE _____	
COLUMN NUMBER	DESCRIPTION OF DATA	COLUMN NUMBER	DESCRIPTION OF DATA
1	0 9	41	(ALPHA) PREFIX
2	0 6 9	42	DUTY AFSC
3	0 9	43	
4	1 9	44	
5	NAME (Alpha) (See attached sheet)	45	
6		46	
7		47	(ALPHA) SUFFIX
8		48	TOTAL MONTHS IN DUTY AFSC
9		49	
10		50	TOTAL MONTHS AT PRESENT BASE
11		51	
12		52	TOTAL MONTHS IN PRESENT WORK ASSIGNMENT
13		53	
14		54	TOTAL MONTHS IN CAREER FIELD
15	55		
16	56	TOTAL MONTHS ACTIVE FEDERAL SERVICE	
17	57		
18	58	COURSES ATTENDED	
19	59		
20	60		
21	61		
22	62		
23	GRADE (1-9)	63	DAFSC AWARD
24	(Alpha) PREFIX	64	
25	(Alpha) PREFIX	65	
26	AIR FORCE SERVICE NUMBER	66	
27		67	
28		68	
29		69	
30		70	COMMAND (ALPHA)
31	PRIMARY AFSC	71	BLANK
32		72	
33		73	
34		74	
35		75	
36	PRIMARY AFSC	76	STUDY NUMBER
37		77	
38		78	
39		79	
40		(Alpha) SUFFIX	
REMARKS 12 PUNCH MISSING INFORMATION COMPLETE "TOTAL MONTHS" ITEMS WITH ZEROS, FOR EXAMPLE: 02 L CODE COLUMNS 63, 64, 65, 66, 67, 68, + 69: 1 FOR YES, 2 FOR NO			
DATE PUNCHED		OPERATOR'S SIGNATURE	

ELECTRICAL ACCOUNTING MACHINE CARD COLUMN LAYOUT

JOB TYPE		SEC. NUMBER HISTORY CARD 2		LAYOUT DATE				
6ND RADIO COMM EQUIP REPAIR		AFSC 30434, 30454, 30474, 30490		PRESENT WORK ASSIGNMENT-JOB TITLE				
PROJECT OR SOURCE OF DATA								
HRB-SINGER, INC. CONTRACT AF 41(609)-2379								
COLUMN NUMBER	DESCRIPTION OF DATA	COLUMN NUMBER	DESCRIPTION OF DATA					
1	CASE CONTROL NUMBER	41						
2		42						
3		43						
4		44						
5	PRESENT WORK ASSIGNMENT (JOB TITLE)	45						
6		46						
7		47						
8		48						
9		49						
10		50						
11		51						
12		52						
13		53						
14		54						
15		55						
16		56						
17		57						
18		58						
19		59						
20		60						
21		61						
22		62						
23		63						
24		64						
25		65						
26		66						
27		67						
28		68						
29		69						
30		70						
31		71						
32		72						
33		73						
34		74			0	CARD NUMBER		
35		75			2			
36		76			76	STUDY NUMBER (Leave Blank)		
37		77			77			
38		78			78			
39		79			79	X RATING FACTOR 1		
40		80			80			
REMARKS								
IF WORK ASSIGNMENT IS NOT ENTERED, PUNCH: NOT RECORDED								
DATE PUNCHED		OPERATOR'S SIGNATURE						

ELECTRICAL ACCOUNTING MACHINE CARD COLUMN LAYOUT

JOB TITLE **6ND RADIO COMM EQUIP REPAIR** DECK NUMBER **TASK CARD 3** LAYOUT DATE
AFSC 30434, 30454, 30474, 30490 (TASK RATING FACTOR 1)

PROJECT OR SOURCE OF DATA

HRB - SINGER, INC CONTRACT AF 41(609)-2379

COLUMN NUMBER	DESCRIPTION OF DATA	COLUMN NUMBER	DESCRIPTION OF DATA
1	CASE CONTROL NUMBER	41	TASK B21
2		42	TASK B22 ✓
3		43	TASK C1
4		44	
5	TASK A1	45	
6		46	
7		47	
8		48	
9		49	
10		50	
11		51	
12		52	
13		53	
14		54	TASK C12 ✓
15		55	TASK D1
16		56	
17		57	
18		58	
19		59	
20	TASK A16 ✓	60	
21	TASK B1	61	
22		62	
23		63	
24		64	
25		65	
26		66	
27		67	
28		68	
29		69	
30		70	
31		71	TASK D17 ✓
32		72	TASK E1
33		73	TASK E2 ✓
34		74	0
35		75	3 CARD NUMBER
36	76	STUDY NUMBER (Leave Blank)	
37	77		
38	78		
39		79	
40	TASK B20 ✓	80	X RATING FACTOR 1

REMARKS

IF BLANK, PUNCH Ø

DATE PUNCHED

OPERATOR'S SIGNATURE

TIME SPENT RATINGS FOR TASKS IN YOUR PRESENT JOB

ANSWER SHEET 1 (FRONT)

DIRECTIONS: RATE THE TIME YOU SPEND ON EACH TASK IN YOUR PRESENT JOB, COMPARED WITH THE TIME YOU SPEND ON ALL OTHER TASKS IN YOUR JOB, BY CIRCLING A NUMBER LIKE THIS: 1 2 **3** 4 5 6 7. USE THE SCALE BELOW.

1	2	3	4	5	6	7
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

1	1 2 3 4 5 6 7	41	1 2 3 4 5 6 7	81	1 2 3 4 5 6 7	121	1 2 3 4 5 6 7	161	1 2 3 4 5 6 7	201	1 2 3 4 5 6 7
2	1 2 3 4 5 6 7	42	1 2 3 4 5 6 7	82	1 2 3 4 5 6 7	122	1 2 3 4 5 6 7	162	1 2 3 4 5 6 7	202	1 2 3 4 5 6 7
3	1 2 3 4 5 6 7	43	1 2 3 4 5 6 7	83	1 2 3 4 5 6 7	123	1 2 3 4 5 6 7	163	1 2 3 4 5 6 7	203	1 2 3 4 5 6 7
4	1 2 3 4 5 6 7	44	1 2 3 4 5 6 7	84	1 2 3 4 5 6 7	124	1 2 3 4 5 6 7	164	1 2 3 4 5 6 7	204	1 2 3 4 5 6 7
5	1 2 3 4 5 6 7	45	1 2 3 4 5 6 7	85	1 2 3 4 5 6 7	125	1 2 3 4 5 6 7	165	1 2 3 4 5 6 7	205	1 2 3 4 5 6 7
6	1 2 3 4 5 6 7	46	1 2 3 4 5 6 7	86	1 2 3 4 5 6 7	126	1 2 3 4 5 6 7	166	1 2 3 4 5 6 7	206	1 2 3 4 5 6 7
7	1 2 3 4 5 6 7	47	1 2 3 4 5 6 7	87	1 2 3 4 5 6 7	127	1 2 3 4 5 6 7	167	1 2 3 4 5 6 7	207	1 2 3 4 5 6 7
8	1 2 3 4 5 6 7	48	1 2 3 4 5 6 7	88	1 2 3 4 5 6 7	128	1 2 3 4 5 6 7	168	1 2 3 4 5 6 7	208	1 2 3 4 5 6 7
9	1 2 3 4 5 6 7	49	1 2 3 4 5 6 7	89	1 2 3 4 5 6 7	129	1 2 3 4 5 6 7	169	1 2 3 4 5 6 7	209	1 2 3 4 5 6 7
10	1 2 3 4 5 6 7	50	1 2 3 4 5 6 7	90	1 2 3 4 5 6 7	130	1 2 3 4 5 6 7	170	1 2 3 4 5 6 7	210	1 2 3 4 5 6 7
11	1 2 3 4 5 6 7	51	1 2 3 4 5 6 7	91	1 2 3 4 5 6 7	131	1 2 3 4 5 6 7	171	1 2 3 4 5 6 7	211	1 2 3 4 5 6 7
12	1 2 3 4 5 6 7	52	1 2 3 4 5 6 7	92	1 2 3 4 5 6 7	132	1 2 3 4 5 6 7	172	1 2 3 4 5 6 7	212	1 2 3 4 5 6 7
13	1 2 3 4 5 6 7	53	1 2 3 4 5 6 7	93	1 2 3 4 5 6 7	133	1 2 3 4 5 6 7	173	1 2 3 4 5 6 7	213	1 2 3 4 5 6 7
14	1 2 3 4 5 6 7	54	1 2 3 4 5 6 7	94	1 2 3 4 5 6 7	134	1 2 3 4 5 6 7	174	1 2 3 4 5 6 7	214	1 2 3 4 5 6 7
15	1 2 3 4 5 6 7	55	1 2 3 4 5 6 7	95	1 2 3 4 5 6 7	135	1 2 3 4 5 6 7	175	1 2 3 4 5 6 7	215	1 2 3 4 5 6 7
16	1 2 3 4 5 6 7	56	1 2 3 4 5 6 7	96	1 2 3 4 5 6 7	136	1 2 3 4 5 6 7	176	1 2 3 4 5 6 7	216	1 2 3 4 5 6 7
17	1 2 3 4 5 6 7	57	1 2 3 4 5 6 7	97	1 2 3 4 5 6 7	137	1 2 3 4 5 6 7	177	1 2 3 4 5 6 7	217	1 2 3 4 5 6 7
18	1 2 3 4 5 6 7	58	1 2 3 4 5 6 7	98	1 2 3 4 5 6 7	138	1 2 3 4 5 6 7	178	1 2 3 4 5 6 7	218	1 2 3 4 5 6 7
19	1 2 3 4 5 6 7	59	1 2 3 4 5 6 7	99	1 2 3 4 5 6 7	139	1 2 3 4 5 6 7	179	1 2 3 4 5 6 7	219	1 2 3 4 5 6 7
20	1 2 3 4 5 6 7	60	1 2 3 4 5 6 7	100	1 2 3 4 5 6 7	140	1 2 3 4 5 6 7	180	1 2 3 4 5 6 7	220	1 2 3 4 5 6 7
21	1 2 3 4 5 6 7	61	1 2 3 4 5 6 7	101	1 2 3 4 5 6 7	141	1 2 3 4 5 6 7	181	1 2 3 4 5 6 7	221	1 2 3 4 5 6 7
22	1 2 3 4 5 6 7	62	1 2 3 4 5 6 7	102	1 2 3 4 5 6 7	142	1 2 3 4 5 6 7	182	1 2 3 4 5 6 7	222	1 2 3 4 5 6 7
23	1 2 3 4 5 6 7	63	1 2 3 4 5 6 7	103	1 2 3 4 5 6 7	143	1 2 3 4 5 6 7	183	1 2 3 4 5 6 7	223	1 2 3 4 5 6 7
24	1 2 3 4 5 6 7	64	1 2 3 4 5 6 7	104	1 2 3 4 5 6 7	144	1 2 3 4 5 6 7	184	1 2 3 4 5 6 7	224	1 2 3 4 5 6 7
25	1 2 3 4 5 6 7	65	1 2 3 4 5 6 7	105	1 2 3 4 5 6 7	145	1 2 3 4 5 6 7	185	1 2 3 4 5 6 7	225	1 2 3 4 5 6 7
26	1 2 3 4 5 6 7	66	1 2 3 4 5 6 7	106	1 2 3 4 5 6 7	146	1 2 3 4 5 6 7	186	1 2 3 4 5 6 7	226	1 2 3 4 5 6 7
27	1 2 3 4 5 6 7	67	1 2 3 4 5 6 7	107	1 2 3 4 5 6 7	147	1 2 3 4 5 6 7	187	1 2 3 4 5 6 7	227	1 2 3 4 5 6 7
28	1 2 3 4 5 6 7	68	1 2 3 4 5 6 7	108	1 2 3 4 5 6 7	148	1 2 3 4 5 6 7	188	1 2 3 4 5 6 7	228	1 2 3 4 5 6 7
29	1 2 3 4 5 6 7	69	1 2 3 4 5 6 7	109	1 2 3 4 5 6 7	149	1 2 3 4 5 6 7	189	1 2 3 4 5 6 7	229	1 2 3 4 5 6 7
30	1 2 3 4 5 6 7	70	1 2 3 4 5 6 7	110	1 2 3 4 5 6 7	150	1 2 3 4 5 6 7	190	1 2 3 4 5 6 7	230	1 2 3 4 5 6 7
31	1 2 3 4 5 6 7	71	1 2 3 4 5 6 7	111	1 2 3 4 5 6 7	151	1 2 3 4 5 6 7	191	1 2 3 4 5 6 7	231	1 2 3 4 5 6 7
32	1 2 3 4 5 6 7	72	1 2 3 4 5 6 7	112	1 2 3 4 5 6 7	152	1 2 3 4 5 6 7	192	1 2 3 4 5 6 7	232	1 2 3 4 5 6 7
33	1 2 3 4 5 6 7	73	1 2 3 4 5 6 7	113	1 2 3 4 5 6 7	153	1 2 3 4 5 6 7	193	1 2 3 4 5 6 7	233	1 2 3 4 5 6 7
34	1 2 3 4 5 6 7	74	1 2 3 4 5 6 7	114	1 2 3 4 5 6 7	154	1 2 3 4 5 6 7	194	1 2 3 4 5 6 7	234	1 2 3 4 5 6 7
35	1 2 3 4 5 6 7	75	1 2 3 4 5 6 7	115	1 2 3 4 5 6 7	155	1 2 3 4 5 6 7	195	1 2 3 4 5 6 7	235	1 2 3 4 5 6 7
36	1 2 3 4 5 6 7	76	1 2 3 4 5 6 7	116	1 2 3 4 5 6 7	156	1 2 3 4 5 6 7	196	1 2 3 4 5 6 7	236	1 2 3 4 5 6 7
37	1 2 3 4 5 6 7	77	1 2 3 4 5 6 7	117	1 2 3 4 5 6 7	157	1 2 3 4 5 6 7	197	1 2 3 4 5 6 7	237	1 2 3 4 5 6 7
38	1 2 3 4 5 6 7	78	1 2 3 4 5 6 7	118	1 2 3 4 5 6 7	158	1 2 3 4 5 6 7	198	1 2 3 4 5 6 7	238	1 2 3 4 5 6 7
39	1 2 3 4 5 6 7	79	1 2 3 4 5 6 7	119	1 2 3 4 5 6 7	159	1 2 3 4 5 6 7	199	1 2 3 4 5 6 7	239	1 2 3 4 5 6 7
40	1 2 3 4 5 6 7	80	1 2 3 4 5 6 7	120	1 2 3 4 5 6 7	160	1 2 3 4 5 6 7	200	1 2 3 4 5 6 7	240	1 2 3 4 5 6 7

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DOCUMENT CONTROL DATA - R&D		
(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)		
1. ORIGINATING ACTIVITY (Corporate author) Personnel Research Laboratory Lackland AFB, Texas 78236		2a. REPORT SECURITY CLASSIFICATION 2b. GROUP
3. REPORT TITLE PROCEDURAL GUIDE FOR CONDUCTING OCCUPATIONAL SURVEYS IN THE UNITED STATES AIR FORCE		
4. DESCRIPTIVE NOTES (Type of report and inclusive dates)		
5. AUTHOR(S) (Last name, first name, initial) Morsh, J.E. Archer, W.B.		
6. REPORT DATE September 1967	7a. TOTAL NO. OF PAGES 64	7b. NO. OF REFS 13
8a. CONTRACT OR GRANT NO. b. PROJECT NO. 7734 c. Task 773401 d.	9a. ORIGINATOR'S REPORT NUMBER(S) PRL-TR-67-11 9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
10. AVAILABILITY/LIMITATION NOTICES This document has been approved for public release and sale; its distribution is unlimited.		
11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY Personnel Research Laboratory Lackland AFB, Texas 78236	
13. ABSTRACT <p>This procedural guide sets forth in detail the procedures for collecting, organizing, analyzing, and reporting information describing work performed by Air Force officers and airmen. Specific steps in the application of the Air Force method of job analysis are presented in chronological order.</p> <p>The guide has been designed to (a) provide guidance to Air Force and other agencies who propose to construct and administer job inventories, (b) assemble information about the Air Force method of job analysis which is now available only from scattered sources, (c) indicate problems found in applying the Air Force method and suggest possible solutions, (d) summarize hitherto unreported experiences gained during occupational surveys, (e) acquaint using agencies with the products of occupational surveys, and (f) provide briefing material where summary information about the Air Force method is required.</p>		

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14. KEY WORDS		LINK A		LINK B		LINK C	
		ROLE	WT	ROLE	WT	ROLE	WT
Airman career fields	job incumbents						
checklist	job inventory						
computer techniques	job survey						
data collection	job types						
data processing	military jobs						
duties	occupation survey						
group differences	officer utilization fields						
group similarities	program (computer)						
guide	procedures						
hierarchal grouping	rating scales						
interviews	review						
inventory construction	sampling						
job analysis	survey administration						
job description	task ratings						
job grouping	task statements						

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